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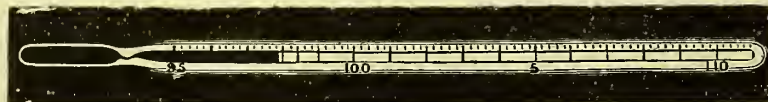
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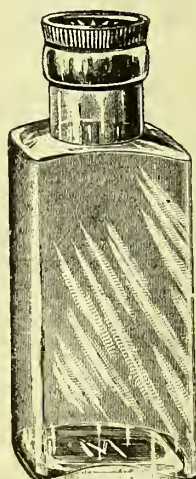
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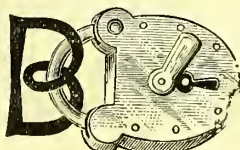
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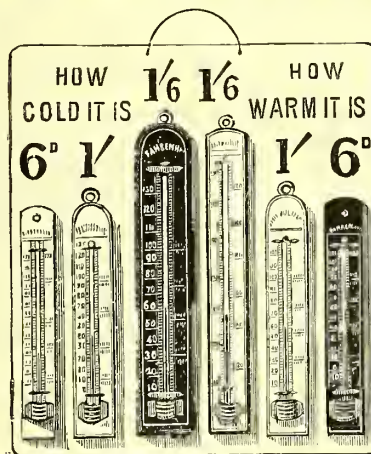


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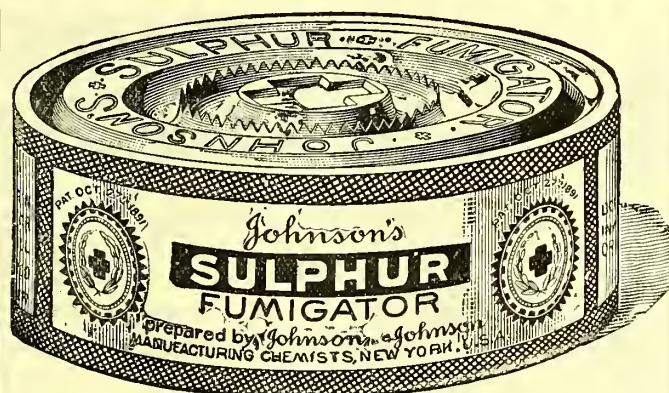
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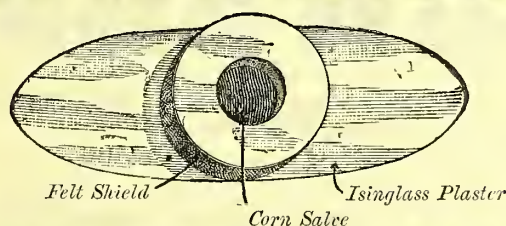
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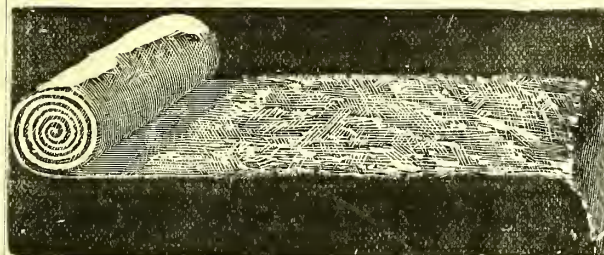
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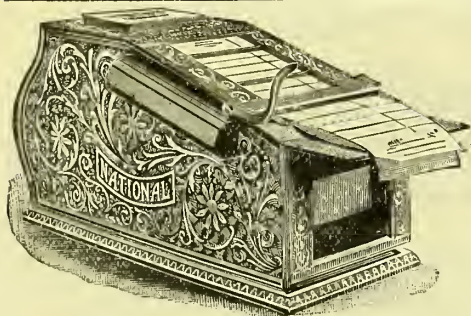
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made by the assistant, and all from the one entry.**Price, all complete - £6 10s.****Manufacturers and Patentees: THE NATIONAL CASH REGISTER TILL CO.**

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PACKED IN 10 AND 5 CWT. IRON DRUMS, TO BE RETURNED, AND IN 56 LBS. TINS FREE.

**WHITEHALL SOAP WORKS, LEEDS.**

In Brass Boxes only,  
Embossed as  
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These Cachoux are delicately flavoured

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**BREATH PERFUME**

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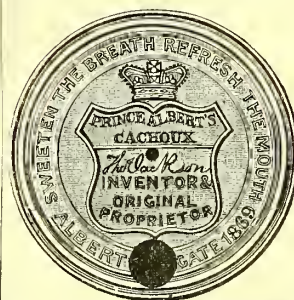
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Are fitted with the  
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### AN IDEAL TOOTH POWDER

CLEANSES. PRESERVES. BEAUTIFIES.

**FOR White Pearly Teeth**

Prices, 3d., 6d. &amp; 1s.

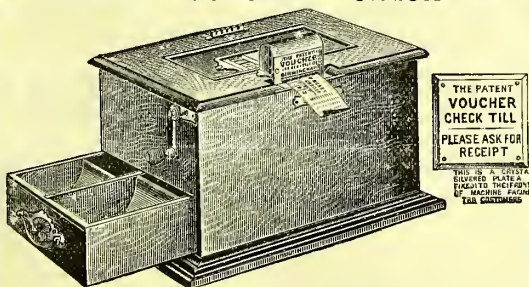
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We invite the attention of the trade to this high-class tooth powder which is now being well advertised and will be found to command a ready sale. The most eminent members of the musical and dramatic professions have testified to its worth. It is giving satisfaction to both the trade and the public wherever it has been introduced. We have special facilities for assisting our agents local sales, and we shall be pleased to supply full particulars upon hearing from you.

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COMPLEXION CREAM**

Removes Wrinkles, Superficial Eruptions, Irritation, Inflamed Eyelids; Heals Burns, Cuts, Bruises, Insect Bites, and is invaluable for Eczema.

Highly recommended by "LANCET" and Dr. SAKTIN.

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Prevents Baldness and Greyness, removes Dandruff, stimulates vigorous Growth, and imparts a softness and glossiness unrivalled by other preparations.



**PEARLINE** Dentifrice preserves Teeth, renders them pearly white, and gives delightful fragrance to the breath.

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CREAM and BALSAM, 12/- each; PEARLINE, 8/- per dozen.



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**WHITE, LEMON, YELLOW, GOLDEN, AND VETERINARY.**  
PACKED IN TINS, 1, 5, 10, 14, 28, 56, and 112 lbs. Also in 3-cwt. Casks.

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For Public Speakers, Actors, and Singers.  
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Universally adopted by the Medical Profession for  
**OPHTHALMIA, SCURVY, RINGWORM, ECZEMA,  
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For External and Internal Irritation of every kind.

PACKED IN CASKS—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles.  
Pint Bottles, 4s. 6d. each, for Hospitals and Dispensing  
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TESTIMONIALS MAY BE HAD UPON APPLICATION.

The above are Manufactured Solely by the Proprietors,

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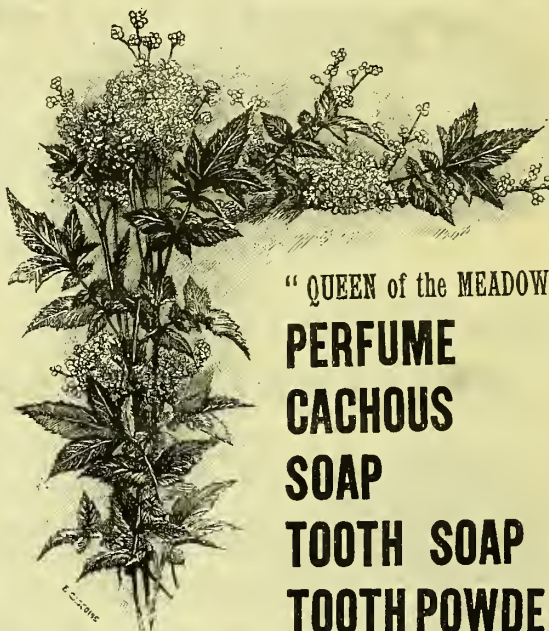
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**PERFUME  
CACHOUS  
SOAP  
TOOTH SOAP  
TOOTH POWDER**

Are the most Saleable Preparations of their kind  
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They do not bear maker's name, and are largely sold by Chemists as their own Proprietaries.

If you have not seen them, write for samples and prices.  
Their unique quality and finish make trade, for, after all, it is inherent merit which leads to continued prosperity in the business pharmaceutical.

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Registered Trade Mark, "DOUGLAS PIER."

The most popular and best-selling Perfume in the market.  
Retail Prices, 1/-, 1/9, 3/6, 6/-, 7/6, 10/6 per Bottle.

**ALSO 3d. SAMPLE BOTTLES.**

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STRET FORD,**

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Highest Awards, when tested against other so-called  
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## CALVERT'S No. 5 CARBOLIC

Which is of the quality adopted as "Standard" by the  
British and German Governments after bacteriological tests.  
Unscrupulous statements that other disinfectants are  
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The Chemist and Druggist, July 30th, 1892, says:—"Although the superiority of Carbolic Acid as a Disinfectant has frequently been challenged, there is no doubt that it continues to hold the first place in public favour."

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# Pears' Soap

Soap Makers  
by Appointment to



H.R.H.  
The Prince of Wales.

RETAIL PRICES.

6d.

SIZE, unscented

Per  
Dozen

4s.

1s.

,, all shapes, Washing or Shaving

8s.

1s. 6d.

,, Ditto ditto

12s.

2s. 6d.

,, (The Washing Tablets are  
perfumed with Otto of Roses)

20s.

TRANSPARENT  
GLYCERINE

2s. per Box of 3 Tablets 16s.

Per dozen  
Boxes.

WHOLESALE PRICE.

**DISCOUNT of 20 per Cent.**  
On all ORDERS of NOT LESS than **£5.**

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AERATED WATERS and BEVERAGES. Specially prepared  
for a first-class Family Trade. Chemists who have not hitherto  
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Trade Lists, sample Counter Bills, and Analytical Reports will  
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**SODAWATER  
MACHINERY**  
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**BRATBY & HINCHLIFFE LTD**  
ANCOATS 146 MINORIES  
**MANCHESTER LONDON**

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**PRICES.**

**SYPHONS** ... 1/6 1/8 and 1/10 each.

**SELTZOGENES.**

1	2	3	4	5	8 pint.
60	8/2	7/	8/	9/11	15/6 each.

Including two funnels and stopper for charging.

All our Seltzogenes are  
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and each one is thoroughly  
tested before leaving the  
works.



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HERTL & COLLINGWOOD, Sole Concessionaires.



A  
Smaller  
Dose.

Less  
Taste.

Never Varies  
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Guaranteed  
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Guaranteed  
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Retails  
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**A NOT UNPALATABLE NATURAL APERIENT WHICH STIMULATES THE LIVER!**

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Packing  
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	Bots.	½ Bots.	Bottles.	½ Bottles.				Bots.	½ Bots.	Bottles.	½ Bottles.		
Æsculap .. ..	15/	12/	25	30/	50	50/	Levico .. ..	12/	8/	40	30/	40	25/
Apollinari .. ..	6/3	5/	50	25/	100	39/	Pullna .. ..	6/	..	50	25/	50	25/
Bourboule (La) .. ..	11/	..	50	42/	..	..	Rosdorf .. ..	6/	5/	50	24/	100	36/
Carlsbad .. ..	12/	..	50	46/	..	..	Rosbach .. ..	9/	..	50	34/	..	..
Cendal .. ..	..	14/	..	..	50	56/	Royat .. ..	15/	9/	25	30/	50	36/
Contrexeville .. ..	9/	..	50	35/	..	..	Rubinat .. ..	6/	..	50	22/	..	..
Filtwick .. ..	24/	15/	..	..	..	..	St. Galmier .. ..	11/	6/6	50	42/	100	52/
Franz-Josef .. ..	..	12/	..	..	50	42/	St. Marco .. ..	6/	4/6	50	24/	..	17/
Friedrichshall .. ..	13/	10/	25	25/	50	40/	Selters .. ..	8/6	..	50	33/	50	29/
Hunyadi-János .. ..	15/	13/	25	30/	50	50/	Vals .. ..	8/6	7/6	50	33/	..	..
Johannis-Brunnen .. ..	6/	4/6	50	22/	100	35/	Vichy (State Springs) .. ..	..	..	..	..	..	..
Kronenquelle .. ..	10/	..	50	40/	..	..	"Celestins," "Grande-Grille," &c.	..	..	..	..	..	..

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Supplied in Six  
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Highly recommended by authorities. The  
only make of perfect purity in all respects.

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MY TRADE last year since I commenced packing all my  
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boxes."

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ALL SIZES  
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HUMAN VACCINE, from healthy children only, microscopically examined and  
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# The Chemist & Druggist

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Businesses Wanted  
Businesses for Disposal  
Premises to Let  
Auction Sales

SATURDAY, APRIL 8, 1893.

Partnerships  
Situations Vacant  
Situations Wanted  
Miscellaneous

### PLEASE NOTE.

**A** DVERTISEMENTS for this Supplement must be received at the Office, 42 Cannon Street, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue.

Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications, endorsed "Supplement," to the PUBLISHER of "THE CHEMIST AND DRUGGIST."

**A** COPY of this Supplement is inserted in every number issued of THE CHEMIST AND DRUGGIST. The Supplement will be sent free by early post on Friday morning to any person connected with the trade who will send in advance a stamped addressed newspaper wrapper for it, or will be given to any applicant at the Office after 9 A.M. on Fridays.

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**NOTTS.**—Branch Retail, only wants personal attention to develop well; Post Office worth £25 per annum; price £170, part can remain.

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4.—**HOME COUNTY.**—High-class Dispensing Business; in present hands nearly 40 years, and producing a net annual income of nearly £600; price required, £1,500.

5.—**LINCOLNSHIRE (Coast).**—Retail, Dispensing, and Prescribing Business; returns £600 under feeble management; capable of doing £1,000; good house in main road; well-fitted shop; price £420.

6.—**GLOUCESTERSHIRE.**—Market town; Retail and Prescribing Business; splendid chance for Dentistry; returns £525; can be increased; good profits; rent £28; price £360; convenient home.

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**IN**CREASING Business in county of Norfolk; returning over £1,000; low rent; good house and garden; price £400. For particulars, apply to Smith & Sons, Wholesale Druggists, Norwich.

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Trade Valuers, Transfer Agents, and Accountants,  
15 WALBROOK, E.C.

Having numerous inquiries for good-class Country Businesses, they invite communications from intending vendors. **NO CHARGE IS MADE UNLESS A SALE IS EFFECTED**, and particulars of businesses are given to those only having the required amount of capital to invest, thus guaranteeing only *bona fide* inquiries and obviating publicity. **VALUATIONS MADE FOR PROBATE OR TRANSFER, BOOKS AUDITED AND BALANCE-SHEETS PREPARED IN ANY PART OF THE UNITED KINGDOM.** After many years' practical experience in the Wholesale and Retail Drug Trade, C. & Co. can offer valuable assistance and advice in the conduct of business of a confidential nature. References permitted to past and present Clients, also to the Leading Wholesale Houses in the Trade.

**HOME COUNTY.**—First-class Retail and Dispensing Business; very handsome pharmacy and good stock; returns nearly £800; price £650.

**KENT.**—Retail and Dispensing; returns £1,100; price £900 or valuation; terms can be arranged.

**MIDLANDS.**—In pleasant market town; Retail and Dispensing; returns £600; price £400; very profitable; good house and garden.

**SOMERSET.**—Good-class Dispensing Business, with handsome pharmacy; returning nearly £600 at good prices; rent £50; price, valuation of stock and fixtures.

**CATHEDRAL TOWN.**—Old-established Dispensing Business, with a good house; returns £900; price £700.

**LONDON, N.**—Family and Dispensing, with valuable Proprietaries; good house; returns £700; price £650; specially recommended.

**SURREY.**—A valuable Retail and Dispensing Business, returning over £800, and rapidly increasing; with a good modern house; price £750.

**KENT.**—A neat little Retail and Family Business, capable of great increase; the returns have been £300 a year; rent £60; price £250.

**NORFOLK.**—Death Vacancy.—A good Family Business, established over 40 years; returns £750; 7-roomed house; rent £45; price £600.

**ESSEX.**—Old-established good-class Country Business, returning over £1,700; the pharmacy is heavily stocked; rent £50; price £1,200.

**NO CHARGE TO PURCHASERS.**

**THOMAS TOMLINSON & SON**, Chemists' Valuers, of New Cannon Street, Manchester, have Businesses for disposal in Bradford, price £550, profits £300; Manchester suburb, £150, profits £120; Middleton, £275, profits £220; Sheffield, £500, profits £250; Bolton, £380, profits £140; Ripon, £650, profits £250; Stockport, £100, profits £100; Fursley, £200, profits £200; Birkdale, £280, profits £160; Workington, £250, profits £200; St. Helens, £200, profits £133; Oldham, £300, profits £250; two in Horwib, £175 (profits £130) and £100 (profits £100); Sale, £140, profits £140; Hollinwood, £100, profits £120; Manchester, £300, profits £300. No charge to ingoers. Say what you want, and we may supply you. Eligible businesses of larger amounts are easily disposed of.

# BUSINESSES FOR DISPOSAL—Cont.

**GOOLE**, Yorks.—For immediate disposal, a Mixed Drug and Grocery business; established over 50 years; average yearly returns, £2,000 for the past 5 years. Particulars of Mr. Briggs, Bridge Street Goole; or, of Messrs. Lofthouse & Saltman, Hull.

**MUST** be sold at once; no reasonable offer refused; a good going concern, suitable for a cutting man, and an opening for Dentistry; rent £65, half let off; same hands 25 years; returns £300; full prices. Apply, after 6 p.m., A. James, 152 Bow Road, E.

**YORKSHIRE.**—Genuine Retail and Prescribing Business in manufacturing district; returns last year over £900; stock and fixtures at a valuation; satisfactory reasons given for selling. Address, 143/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**SOUTH-EASTERN** Suburb.—Brisk Cash Retail; good prices; over 8 years' lease to run; present hands 9 years; fair sized garden; one of the best streets in South London; capable of great extension; price £575. Apply, "Betts," c/o Mr. Wallis, 106 Birchanger Road, South Norwood.

**MUST** be sold at a sacrifice.—North of England; stock and fixtures valued at £250 or £260; returns £8 weekly; owner leaving England; genuine; investigation invited; lowest price £200 to immediate purchaser. Apply, 154/5, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**IN** country town in Kent, a good small Retail and Dispensing Business; returns £460; net profits about £250; rent £36; large garden; an Agency (Insurance) brings in £25; to an immediate purchaser will take £300 or valuation. 155/11, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.



**SITUATIONS WANTED—Cont.**

- TEMPORARY** Manager or Senior; qualified. "Locum," 124 High Street, Tewkesbury.
- LOCUM-TENENS** (36); qualified; abstainer; disengaged. "Minor," 8 Castle Street East, W.
- ASSISTANT** (24); qualified; good experience. "Radix," 5 St. Mary's Square, Paddington.
- ASSISTANT** (25); outdoors; qualified; Extract Teeth. "Chemist," Northenden Road, Sale.
- MANAGER**, outdoor Assistant, or Locum-Tenens; qualified. D., 1 Talbot Road, Islworth.
- JUNIOR** (23); abstainer; time for study; South Coast. Pearce, 3 Cecil Square, Margate.
- JUNIOR** (21); 6 years' experience; South preferred; good reference. Akroyd, Bondgate, Alnwick.
- QUALIFIED**; medium height; aged 25; good experience. J. J., 1 Brunswick Street, Carlisle.
- AS** outdoor Assistant (27); Minor; disengaged. E. T. N., 17 Priory Terrace, Caversham, Reading.
- ASSISTANT**; aged 21; in or near Liverpool preferred. Apply, 41 Mount Pleasant, Liverpool.
- LOCUM** or permanent; aged 27; excellent experience and references. 2 Horton Street, Lewisham, S.E.
- WANTED**, to place a youth (17), leaving school, with a smart Chemist. West, Baxter Gate, Doncaster.
- JUNIOR** (21), in Dispensing business; London preferred. C. Clements, Aston Caulflow, Henley-in-Arden.
- ASSISTANT**; tall; experienced; highest references; disengaged. "Rhei," 100 Queen's Crescent, N.W.
- ASSISTANT** (23) desires immediate engagement; good experience. Fletcher, Black Horse Yard, Whitby.
- JUNIOR** (20); experienced; disengaged; local. Blount, 255 Tamworth Road, Newcastle-on-Tyne.
- JUNIOR Assistant** (21); 4 years' experience; disengaged. J. Turton, Plampton House, Denby, Huddersfield.
- MANAGER** or Assistant (42); qualified; Prescriber, Extractor. Martyu, Tower Hill, St. David's, Penn.
- W.**, Acacia House, Lindley, Huddersfield; aged 23; disengaged; outdoors preferred; good references.
- AS** Junior; neat and accurate Dispenser; 5 years' experience. "Chemicus," 2 Spencer Terrace, Putney.
- AS** Assistant, Dispenser, or Manager, by qualified Chemist; aged 40. S. Hassall, 143 Charles Street, Hanley, Staffs.
- AS** Manager by day, week, or month, with view to purchase; qualified. A. B., 69 Adolphus Street, New Cross, London.
- AS** Stockkeeper or Assistant for Patents, Sundries, &c.; aged 25. C. W., 106 Loughborough Road, London, S.W.
- JUNIOR** (22); 5½ years' experience, London; disengaged; good references. "Aurant," 123 Lisson Grove, N.W.
- WHOLESALE**.—Office Manager or Traveller; 20 years with a leading Scotch house. J. R. B., 6 Seacroft Road, York.
- AS** Junior or Dispenser; good references. "Junior," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
- JUNIOR**; part-time; London or Manchester. "Pax," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
- ASSISTANT**; tall; first-class experience; good references; 9 years at business. A. A. N., 7 Main Street, Clonmel, Ireland.
- ASSISTANT** (outdoor); Prescriber, Extractor; aged 27; good references; disengaged. "Statim," 4 Derby Road, Croydon.
- QUALIFIED**; as Branch Manager or Assistant; good experience and references; 23. W., 35 Station Road, Finchley, N.
- ASSISTANT**; aged 23; height 5 ft. 11 in.; 7 years' experience; good Dispenser; time for study. 8 High Street, Mexborough.
- YOUNG** man (21) desires situation as Traveller; 6 years' experience, Retail; highest references. "Rhei," 53 Water Lane, Preston.

**JUNIOR** or Improver in good-class business; aged 20; good reference; disengaged. "Prelim," Mostyn, Boscombe, Bournemouth.

**AS** Senior or Dispenser. "Minor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**JUNIOR**; aged 21; height 5 ft. 10 in.; good references; disengaged; Minton, New Street, Oakham.

**JUNIOR** (22); height 5 ft. 9 in.; good references and experience. Apply, Soanes, Hampton, Middlesex.

**MANAGER** or Locum-Tenens; varied experience; disengaged. "Chemist," 11 Saunders Road, W.

**LOCUM-TENENS** or Branch Manager; registered; references. "Æsclop," 32 Laurel Grove, Peuge.

**AS** Assistant; experienced; either part or full time. "Statim," 52 Ashmore Road, St. Peter's Park, W.

**AS** Junior in a good house; 4 years' high-class Dispensing experience. "Rex," 16 Market Square, Leighton Buzzard.

**AS** Assistant; temporary or permanent; 33. 155/33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**MANAGER** or Dispenser; under 30; qualified; reliable; good references. "Chemist," 27 Northampton Road, Wellingborough.

**ASSISTANT** (25); permanent; good experience and able to Extract. D. W., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**JUNIOR** (20); good Counterman and Dispenser; 4 years' experience; good references. Williams, 11 Alfred Street, Maesteg, Glamorgan.

**ASSISTANT** (26) desires immediate engagement in Dispensing business (London); time for study. W., 93 York Road, Lambeth.

**LOCUM-TENENS**, or Dispenser to a Surgeon, or Assistant to a Chemist; disengaged. Address, W. B., 4 Aston Street, Birmingham.

**QUALIFIED** (23); short; part-time, or otherwise; Brighton or vicinity; good references. Smith, 109 Ronald Hill Crescent, Brighton.

**MANAGER** (outdoors); aged 41; married; City and West-end experience. Apply, "Quercus," Mr. Emms, Chemist, Potter's Bar.

**JUNIOR**, 3 years' experience, wants situation as Improver, in Bradford or district preferred. M. Jefferson, 53 Gillington Road, Bradford, Yorkshire.

**GOOD-CLASS** business; as Assistant; over 6 years' experience; aged 22 years; disengaged. "Chemicus," 102 Clapton Common, London, N.E.

**MANAGER**, Assistant, or Locum-Tenens; experienced and qualified; aged 36; single. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**SITUATION** wanted in a good Agricultural business as Assistant; outdoors; or to work a district amongst farmers; aged 30. F., 1 Clinton Terrace, Exmouth.

**WHOLESALE**.—Situation wanted as Warehouseman; experienced. Address, H. S., c/o Mr. T. Hasselby, Pharmaceutical Chemist, Baxtergate, Doncaster.

**SURGEON'S** Dispenser; aged 31; tall; of gentlemanly appearance; highest references; Essex preferred. "Dispenser," c/o Mrs. Paskell, The Green, Wix, Essex.

**TRAVELLER**.—Gentleman, aged 26, lately representing large manufacturing firm; good connection; highest reference. L., Rose Lodge, Westbury-on-Trym, Bristol.

**PHARMACEUTICAL** Chemist (23), abstainer, seeks engagement in a first-class Retail and Dispensing business. Blakeley, 45 Buckingham Palace Road, S.W.

**IMPROVER** (24); 4 years' experience; abstainer; height 5 ft. 3 in.; good reference; small salary to commence with; outdoors preferred. "Alpha," Ivy House, Henry Street, Crewe.

**TEMPORARY** or otherwise; 6½ years in last berth as Manager of Branch; aged 30; East Coast preferred; good references. H. Taylor, Neyland Terrace, Neyland, Pembrokeshire.

**WHOLESALE**.—Advertiser, 20 years' experience in manufacturing firm; competent to manage and accustomed to travel. Address, "Scales," 74 Rushmore Road, Clapton, N.

**WHOLESALE**, or Manager Retail; fully competent to take entire charge; West-end experience; qualified; married; London preferred. T., 125 Ledbury Road, Bayswater, W.



## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**A SMART** Junior, for high-class Cash business at once. L., 215 Finchley Road, N.W.

**WANTED**, an Improver or Junior Assistant. Apply, with full particulars, to J. J. Trencor, The Square, Barnstable.

**WANTED**, Junior Assistant; quick and accurate Dispenser, good Stockkeeper. Milton, Pharmaceutical Chemist, Exeter.

**WANTED**, a competent Assistant for Dispensing and Light Retail business; 1 kept. Apply, R. Hiscock, Chemist, Coventry.

**MARTIN MAGOR**, Pharmacist, Birmingham, has vacancy for smart, active Junior well up in cutting prices, and able to dispense.

**QUALIFIED** Assistant, experienced, at once, under 25; weekly half-holiday; send usual references. Blanchford, late Mumbay, Richmond, Surrey.

**WANTED**, qualified Assistant (outdoors), 26 to 30 years of age. Apply, with usual particulars, to John Taylor, 123 Yorkshire Street, Rochdale.

**ADVANCED** Junior, indoors, for brisk Retail and Dispensing; good references. Send photo and full particulars to W. S. Harvey, The Central Pharmacy, Margate.

**JUNIOR**; Drysaltery, Wines, &c.; outdoors; character must bear strict investigation; abstainer preferred. Salary and particulars, with photo, to Gibson, Burton-on-Trent.

**WANTED** for Carlisle a Junior Assistant, age not under 21. Applicants to state age, salary required, and references, to J. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**MESSRS. HITCHCOCK & CO.**, Oxford, require a Junior Assistant; qualified. Apply, personally, to J. & H. Mathews, 1 Queen's Gardens, Bayswater, London, or by letter to Oxford.

**MESSRS. W. PHILLIPPS & CO.** require immediately a competent qualified Assistant (indoors); one accustomed to good-class business; not over 25; salary £60. 215 Lewisham High Road, S.E.

**IMPROVER** wanted, or Gentleman working for exams; board and lodging in return for services; plenty of time for reading and outdoor; use of books, &c. H. Street, Chemist, Streatham, S.W.

**WANTED**, young qualified Chemist to Manage small Retail and Prescribing business for widow; must be steady. Apply, enclosing photo and references, and height, 138 Queen's Road, Halifax, Yorkshire.

**MANAGER**, qualified, for branch in Scotland; cash trade; another assistant kept. State age, height, salary outdoor, experience, and when disengaged, to "McDrose," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TUNBRIDGE WELLS**.—At the end of April, a qualified Assistant, with good references, accustomed to Light Retail and Dispensing business; aged about 24 and upwards; 2 kept. Miller & Co., Mount Ephraim, Tunbridge Wells.

**WANTED**, at once, Senior Assistant; must be good Dispenser and accustomed to West-end trade. Please state age, height, salary required, and where last (enclosing photo if convenient), to Hync, Pharmacy, West Hampstead, N.W.

**£60** (indoors): Minor, about 24; fair hours, and comfortable berth; must have good Dispensing experience and excellent references. Full particulars, and enclose c.v., to W. Edes Everett, St. Botolph's Pharmacy, Colchester.

**WANTED**, a qualified Assistant; must be well up in Agricultural business, an abstainer, and able to produce first-class references; permanent situation to a suitable man. Apply, with all particulars, to J. McCall, White Winton, Cumberland.

**QUALIFIED** Assistant, aged 26 to 30, for light Retail and Dispensing Business; also Junior about 23 or 24. Full particulars in first letter as to age, height, experience, salary (indoor), and recent references, enclosing photo. J. Senior, Chemist, Eastbourne.

**WANTED**, a registered Assistant, indoors, for a small branch; mixed trade; a middle-aged man whose character will bear strict investigation not objected to. Apply, with the usual particulars and references, to A. Peake, Chemist and Dentist, Earlestown, Lanc.

**WANTED**, an energetic, reliable, and gentlemanly Assistant, about 22; must be a smart Counterman, competent Dispenser, and well recommended. Apply, personally, Drug Department, Jones, Bros. & Co., 360 Holloway Road, N. Close at 4 o'clock on Saturdays.

**WANTED**, immediately, a qualified Assistant, aged about 30, of good address, for a Light Retail and Dispensing business; short hours; only 1 kept; references must be good. Please send photograph and full particulars to H. B. Clarke, Church Street, Great Malvern.

64

**QUALIFIED** Part-Manager wanted, at once. H. M. Robertson, 11 East Street, Waltham.

**JUNIOR** Assistant. Full particulars, or apply personally, J. K. Hobbs, 33 High Street, Harlesden, N.W.

**QUALIFIED** Assistant, 25 to 30, in good-class business. Apply, with particulars, J. Beddard, 46 Churton Street, Belgrave Road, S.W.

**JUNIOR** Assistant; used to putting up stock and obliging to customers; comfortable home and small salary offered to one wishing time for study. 3 Croxted Road, West Dulwich.

**WANTED**, Assistant, with Minor qualification; age about 23; accustomed to first-class Dispensing. Apply, by letter, in first instance, to Stickland & Co., 23 Cromwell Place, S.W.

**ASSISTANT** for General Retail; steady; indoors; 26 to 28 years of age; good appearance; full particulars; salary. Address, "Capable," 56 St. George's Road, Southwark, S.E.

**WANTED**, early in May, a competent Assistant; 2 kept; outdoors; he must be quick and reliable, and accustomed to good Dispensing; short hours. Apply, with usual particulars and photo, to Squire, Chemist, Oxford.

**WANTED**, Manager, for Bolton; Mixed business; must be qualified, married, not over 40, good Tooth-extractor and Prescriber, accustomed to Oils and Paints; an energetic and sober man will have permanent and improving situation; send carte. Pare, 10 Hawkshead Street, Southport.

**WANTED** for large pushing Business, Manager thoroughly well up in Machinery Oils, Paints, Varnishes, Drysaltery and Country Wholesale; liberal salary to experienced energetic man of first-class character. Address, 154/33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, for a fashionable seaside town for the summer months, an experienced Assistant (Minor qualification), accustomed to good-class trade. Apply, in first instance, stating age, height, and salary required, with references, which must be satisfactory, to F. W. Smith, Chemist, Ludlow.

**WANTED**, in suburban town at the end of April, an Assistant of good appearance and address, experienced in Light Retail and Dispensing, 25 years of age and upwards, and possessing good references. Address, with usual particulars, W. J., c/o Messrs. May, Roberts & Co., Clerkenwell Road, London.

**WANTED**, immediately, an indoor Junior Assistant; qualified preferred; must be a good Dispenser and Counterman; applicants will please state age, height, and salary required, and enclose carte (to be returned). Also a vacancy for an Apprentice; moderate premium. Poole & Son, Chemists, Newcastle, Staffordshire.

**ASSISTANT**, outdoors, aged about 22, active, and of gentlemanly appearance, for select Retail and Dispensing establishment; one having served apprenticeship in good country business would suit; qualified preferred, but not essential. State full particulars, height, age, salary expected, when disengaged, send copies testimonials and photograph, Lawrence, Chemist, Oban, N.B.

**WANTED**, about middle of May, a thoroughly reliable and competent Assistant, married or single, well acquainted with the general routine of a good-class Country business; must be a good and agreeable Counterman, able to Prescribe, &c., and having some knowledge of Veterinary practice. Applicants please state every particular, giving 2 last references, age, salary, in or outdoors, and enclose c.v., to C. B. Shuker, Llanccoston.

**WANTED**, a young qualified Pharmacist, quick and correct at figures, to take entire charge of the cost-books of an important firm of Manufacturing Chemists; no application will be entertained unless proofs are forthcoming of exceptional ability and accuracy in calculations; a permanent, rising position to one able to meet the requirements of the advertisers. Apply by letter, stating age, salary, experience, and other particulars, to A. Y. Q., c/o Thomas Dixon, 16 Great Marlborough Street, W.

## SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

**QUALIFIED**; Branch or otherwise; in or out doors. H., The Poole, Hereford.

**JUNIOR**; aged 20; good-class Dispensing. E. B. Sayers, Mercery Lane, Canterbury.

**LOCUM**; aged 30; Minor; West End experience. H., 188 Lewisham High Road, S.E.

**AS** temporary Manager or Locum-Tenens. "River," 54 Lambert Road, Brixton Hill.

**DISPENSER** or Assistant; qualified; outdoors; aged 25. A., 4 Stratford Road, W.



**BUSINESSES FOR DISPOSAL—Cont.**

**L**IGHT Retail and Prescribing Business, in thickly-populated district; several specialities; rare opportunity for Extractor and Prescriber with small capital; post-office attached; good reasons for leaving. W. Harvey, 9 Abbey Street, Derby.

**£160.**—**LONDON, N.E.**—Handsome Pharmacy, well stocked, mahogany fittings; returns last year over £400; nice house, with garden; a genuine bargain; must be sold; near offer considered. Apply, M., 124 Richmond Road, Hackney.

**H**OME COUNTY; about 20 miles from London, and almost unopposed; an old-established good-class Family and Dispensing Business; returning £1,050 yearly; price £900, or small goodwill and valuation. Apply, Kino, c/o Messrs. Edwards & Son, 157 Queen Victoria Street, E.C.

**L**ANCS.—Light Retail, Dispensing, and Prescribing Business; returns £400; good house, large well-fitted shop, rent £30; same hands 5 years; owner, going abroad, will accept the low sum of £200 to an immediate purchaser; a bargain. Full particulars of the Agents, Andros & Co., 67 Ship Street, Brighton.

**A** SMALL high-class Dispensing and Retail Business in fashionable suburb; large modern handsomely-fitted shop; good house, long lease; returns £200; price, valuation of stock and fixtures only; a decided bargain. "Myrtle Grove," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**L**ONDON, E.—Old-established Cash Retail and Prescribing; increasing business in large populous district; good opening for Dentistry; returns £450; will hear strict investigation; satisfactory reasons for disposal; good garden. "Ipecac," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**H**ULL.—Branch in good and increasing neighbourhood; main road; shop double-fronted, well fitted; returns, under management, £600; good house; rent £40; this is a capital chance for good business man; price £275. Address, B., c/o Messrs. Lofthouse & Saltner, Hull. Only cash buyers will be treated with.

**M**IDLANDS.—For disposal, a good Mixed Business, neatly fitted-up shop; main road; low rent; returns £400; about £250 required; a genuine concern, and chance of a lifetime for a young and energetic man; good reasons given for leaving. "Plns," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**L**IGHT Retail and Dispensing Business in healthy suburb (Surrey); returns £1,100, and steadily increasing; rent £60; long lease; good opening for Dentist; satisfactory reason for disposing of same; moderate price to prompt buyer. Apply, "Essentia," c/o Messrs. Davy, Yates & Co., 64 Park Street, Southwark, London.

**£150.**—Well fitted and stocked Business; mahogany fixtures; takings about £5 weekly; no opposition; no Sunday trade; short hours; rent £35, £13 let off; owner unable to give whole attention; good reason for disposal; worth attention; bargain. Apply to "Chemist," 48 Fentima Road, Clapham.

**L**ANCASHIRE (near Bolton).—For disposal, Retail and Dispensing Business; well established and admitting of considerable extension; returns about £400 yearly; well-fitted shop and good stock; rent only £30, on lease; valuation of stock and fixtures only required. Apply, Messrs. Orridge & Co., 32 Ludgate Hill, London.

**£400** or valuation; handsomely-fitted, well-stocked shop; best position, on main road; in rapidly increasing improving neighbourhood; convenient modern house; moderate rent, or sell; Dispensing, Prescribing, and Family Retail, at good prices; in same hands 21 years. Turner, Chemist, Totterdown, Bristol.

**R**EADING, Berks.—In a busy middle-class neighbourhood, a Retail and Prescribing Business which, through old age, has been neglected, but now doing £6 weekly; valuation of stock and fixtures required, about £150; would suit as Branch, or to start cutting. R., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**M**IDLANDS; thickly-populated district; very profitable Light Retail, with excellent dwelling-house; returns over £550; Prescribing and good Proprietaries, no Patents; grand opening for energetic man; no opposition and much scope; price £275. Address, "Prescriber," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**G**OOD opportunity for a qualified man, commencing with £300; handsomely-fitted corner Chemist's Shop, with a Business capable of improvement, having been managed by assistants; to be sold cheap; large house, let off for more than rent and taxes, in London Suburb, to old tenants. Address, "Chemist," c/o Tibbit, 252 High Road, Tottenham.

**£180.**—**SURREY.**—A Light Retail, Dispensing, and Prescribing Business, in an increasing locality; returns £6 weekly; large double-fronted shop, well fitted; excellent stock; good house, long garden; low rent; good opening for adding Dentistry; price £180. "Salicine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**£360.**—A well-established, steadily increasing Cash Country Business, in small market town; centre of large district, West Midlands; now averaging £12 weekly; Light Retail, Prescribing, Dispensing, Agricultural, &c., nothing heavy; good roomy house; moderate rent. "Sigma," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**S**OUTH-WEST OF ENGLAND.—Very old established Retail, Dispensing, and Prescribing Business in an excellent position in county town; returns nearly £900; large double-fronted shop, substantially fitted and heavily stocked; good house with garden; low rent; price £550. "County Town," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**M**IDLANDS.—In fashionable inland watering-place; Dispensing and Light Retail; returns £450; fine double-fronted shop of commanding appearance; well suited for doing large trade; excellent 10-roomed residence; rent can be more than cleared by letting; price £450, about value of stock and fixtures. "Midland," c/o F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

**BUSINESSES WANTED.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**W**ANTED, in or near London, a bona-fide Business, showing net profit of £300 or £400 per annum, with comfortable house accommodation. Address, "D. a," 55 College Street, Chelsea, S.W.

**W**ANTED, small Business; moderate rental; to save time, please state full particulars (in confidence), and whether trial allowed; within 3 miles of Charing Cross preferred. Apply, "Borax," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**T**O Wholesale Druggists.—Small Share in a Business wanted; about £2,000 could be found by a young man (26), unqualified, with experience in the drug-market, laboratory, manufacture of essences, and general business. Apply, by letter, to S. S., 14 Lady Margaret Road, Kentish Town, N.W.

**W**ANTED, a genuine and reliable Light Retail Business; returns £600 to £800, with fair average profits; locality no object, but must bear investigation; neglected business would be entertained if capable of increase. Address, Mr. S. Clarke, Richmond Cottage, Summerhill Road, West Green, Middlesex.

**SALES BY AUCTION.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**WATERLOO ROAD.**

By order of the Administratrix of A. F. Effland (deceased).

**W**ALTER SIMMONDS will SELL by AUCTION, at the Mart, Tokenhouse Yard, E.C., on Tuesday, April 11, 1893, at 12 o'clock sharp, the LEASE and GOODWILL of the Premises, No. 197 Waterloo Road, together with the fixtures, fittings, and utensils of a Chemist and Druggist's carried on for upwards of 20 years by the late owner. The premises are held on lease for a term of 21 years from September 29, 1884, at £40 per annum.

Particulars and conditions can be obtained at the Mart; of Ernest Bevir, Esq., Solicitor, Devereaux Chambers, Temple, W.C.; or of the Auctioneer, 58 Camberwell Road.

**APPRENTICESHIPS.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**A**PPRENTICE.—A vacancy occurs for an out-door Apprentice in high-class Pharmacy, South Coast. H. Churchill, Pharmaceutical Chemist, 57, 58 East Street, Brighton.

**A**PPRENTICE.—Messrs. Dunkley & Rogers, Tunbridge Wells, have a vacancy for a well-educated youth; one having passed the Preliminary; thorough training, and a comfortable home; premium required.

**TO LET.**

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**C**ARDIFF.—To let, corner premises; grand opening for a Chemist no opposition. Apply, David Powell, Ivy Villa, Bridgend Street, Portmaunoor Road, Cardiff.



## MISCELLANEOUS.



# PETER TYRER'S SAUCES

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	Per gross.	Extra Quality.		Per gross.	Extra Quality.
1. Sample Bottles, dozen parcels	5/3	6/3	1/2 Bottles, flat or round, reputed 1/2 pints	16/-	26/-
14. " " 1/2 gross boxes	5/8	6/8	1 Pint Imperial, round stoppered bottles	28/-	38/-
14. " " dozen parcels	6/6	8/6	12 1/2 Gallon Casks (casks free)	62/-	62/-
14. " " 1/2 gross boxes	7/-	8/-		20/-	32/-

**ROYAL CAFE SAUCE, a Rich Fruity & Exquisite Flavour.**

Square Glass Stoppered Bottles, containing nearly 1/2 pint Imperial. 42/- per gross. Sample Bottles at 7/- per Gross.

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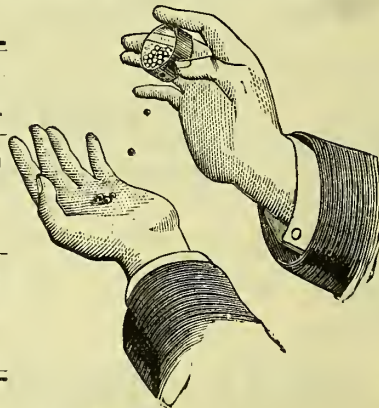
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between the fictitious nutritive value of such invalid foods as are mainly composed of Gelatine or the extractive matters of meat, or both, as many so-called peptones, meat essences, &c., are, and the true

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BISCUITS

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PEPSIN WINE at 1/8 per pint,  
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BUT YOU CAN  
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You don't want to pay 10s.  
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For the predigestion of foods.  
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PRIME BEEF.  
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**CHEMISTS & DRUGGISTS**  
OF  
**GREAT BRITAIN.**

TELEGRAPHIC ADDRESS: *St. George's, Middle St.*  
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*December, 1887.*  
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Yours obediently,

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ALL KINDS IN ANY QUANTITIES.

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IN 1-CWT. ORIGINAL BARRELS. BARRELS FREE.

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## ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

## INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Acme Chemical Co. .... 46	Dee Oil Co. (Lim.) .... 14	Kay Bros. (Lim.) .... 42	Raybould, Fleisher .... 54
Allen & Hanbury ..... <i>Front Cover</i>	Denaeyer's Peptones ..... 22	Keene & Ashwell ..... 35	Richardson, J., & Co (Leicester) (Lim.) .... 41
Apollinaris Co. .... <i>Outside Cover</i>	Dodd Broth's ..... 44	Kent, G. B., & Sons ..... 40	Robbins, J., & Co. .... 37
Armour & Co. .... 24	Dorina Biscuits ..... 22	Kühn, B. .... 50	Kooke, Dr. .... 48
Arthur & Co. .... 5	Dorothy Denufice Co. .... 13	Lalor, Dr. .... 53	
Artistic Photo Co. .... 7	Drysdale & Co. .... 51	Lanoline ..... 33	
Bailey's Toilet Co. .... 13	Duncan, Flockhart & Co. .... 38	Langhand, Mackay & Baker .. 43	
Baiss Bros. .... 58	Eade's Pills ..... 54	Leo & Co. .... 43	Salamon & Co. (Lim.) .... 51
Barclay & Sons (Lim.) .... 31	Economic Printing Co. (Lim.) .. 54	Levermore & Co. .... 54	Sandoli & Co. .... <i>Text</i> 482
Barrett, R. H. .... 52	Elliman, Sons & Co. .... <i>Text</i> 482	Lewis, M. .... 54	Sanger, J., & Sons ..... 11
Berdoe & Co. .... <i>Coloured Supplement</i>	Epps, J., & Co. .... 51	Liebig Co. .... 29	Santas, The Co. (Lim.) .. <i>Text</i> 482
Bleasdale & Co. .... 14	Eschmann Bros. & Co. .... 31	Lincoll Drug Co. .... 43	Shirley Bros. .... 67
Blondeau & Co. .... 35	Exchange Column ..... 8	Lloyd, T. Howard, & Co. .... 31	Silverlock, H. .... 5
Boehm, F. .... 37	Fennings, Alfred .... <i>Outside Cover</i>	Lofthouse & Saltmer ..... 42	Smith, S., & Co. .... 21
Boehringer & Sohne ..... 38	Fink, F., & Co. .... 54	London and Lancashire Insurance Co. .... <i>Text</i> 482	Smith, T. & H., & Co. .... 35
Boord & Son ..... 56	Fitch & Nottingham ..... 44	London Homoeopathic Hospital and Medical School ..... 5	Smith & Hutchinson ..... 31
Boulton, J., & Co. (Lim.) .... 22	Fletcher, Fletcher & Stevenson .. 54	Lungili Co. .... 51	Smith & Sons ..... 36
Bowers Bros. .... 7	Franz Josef Co. .... 17	Manchester School ..... 5	Snowdon, Sons & Co. .... 46
Bratby & Hinchliffe (Lim.) .... 16	French Hygienic Co. .... 21	March & Co. .... 48	Solport Bros. .... 30
Breffits, E., & Co. .... 53	Fuerst Bros. .... 26	Mason, G. E., & Co. .... 31	Sozio & Andrioli ..... 12
Brett, F. J. .... <i>Coloured Supplement</i>	Gardner, W. .... 50	Mason, G., & Co. (Lim.) .... 20	Speller & Co. .... 54
British Syphon Co. .... 20	Gent & Co. .... <i>Text</i> 482	Maw, S., Son & Thompson ..... <i>Cover</i>	Stern, E., & Co. .... 56
Bromley, C. .... 54	Gibson, R., & Son ..... 26	May & Baker ..... <i>Cover</i>	Stern, G. & G. .... 22
Browning & Co. .... 40	Giles, Schacht & Co. .... 43	May, Roberts & Co. .... <i>Cover</i>	Stevens, P. A. .... 54
Burgess, E., jun. .... 45	Glover & Co. .... 18	Mellin, C. .... 6	Stevenson & Howell ..... 3
Burroughs Bros. .... 18	Goodall, Backhouse & Co. .... 25	Miller, A., & Co. .... 20	Sutton, W., & Co. .... 48
Burroughs, James ..... 56	Great Tower Street Tea Co. .... 19	Mills & Co. .... 13	
Burroughs, Wellcome & Co. 32, 33, 34	Grimwade, Ridley & Co. .... 49	Morrison, J., & Co. .... 43	Thiellay, E. H. .... 54
<i>Front Cover</i>	Grindley & Co. .... 47	Moss, J., & Co. .... <i>Text</i> 482	Treble, G., & Co. .... 12
Burton, W., & Sons ..... 26	Hargreaves, Dr. .... 5	Mumford & Co. .... 55	Tyler, Hayward, & Co. .... 51
Businesses for Disposal. <i>Col. Supp.</i>	Harker, Stagg & Morgan ..... 37	National Cash Till Co. .... 12	Tyler, P. .... 25
Cadbury Bros. .... <i>Cover</i>	Haywood, J. H. .... 31	Newball & Mason ..... 19	Tyler, T., & Co. .... 19
Calvert, F. C., & Co. .... 14	Hearn, E. A., & Co. .... 52	Newbery, F., & Sons ..... 7	
Chassaigne & Co. .... <i>Text</i> 482	Henry, T., & W. .... 45	Northern School ..... 5	Vaccine Association ..... 18
Chemists' Association (Lim.) .. 30	Herbert's, Dr., Pills ..... 54	Oakey & Sons ..... 52	Van der Lely & Simpson ..... 54
Chemists' Exhibition ..... 7	Hewlett, C. J., & Son ..... 42	Orridge & Co. <i>Coloured Supplement</i>	Vogt & Co. .... 12
Chesebrough Manufacturing Co. .... 31	Hickisson, J. .... 35	Pascall, J. .... 20	Voucher Check Till Co. (Lim.) 13
Chong, D. .... 55	Hicks, J. J. .... 6	Pears, A., & F. (Lim.) .... 15	
Chrys, T., & Co. .... 54	Hirst, Brooke & Hirst ..... 20	Phillips, G., & Co. .... 56	Warrick Bros. .... <i>Text</i> 482
Clay, Dod & Co. .... 45	Holloway ..... 44	Pinebin, Johnson & Co. .... 40	Watson, J., & Sons ..... 13
Coleman & Co. .... 25	Hubbuck, T., & Sons (Lim.) .. 38	Poeths, H., & Co. .... 35	Watson, J., & Sons ..... 13
Congreve, G. T. .... 34	Ingram & Royle ..... 13	Potter & Clarke ..... 4	"W" Brand Bottles ..... 55
Corsan, J. R. .... 3	Isaacs, I., & Co. .... 10	Price's Patent Candle Co. .... 19	Werner & Pfeleiderer ..... 50
Critchley, T. .... 40	Jackson, T. .... 13		West, T. .... 14
Crooker & Co. <i>Coloured Supplement</i>	James, W. H. .... 55		White, Fairchild & Co. .... 55
Davidson & Gray ..... 54	Jewsbury & Brown ..... 15		Whitcox & Co. .... 10
Day & Sons ..... 46, <i>Text</i> 482	Johnson & Johnson (Lim.) .. 9		Wood Bros. .... 55
Day, Son & Hewitt ..... 47	Josephs, P. .... 12		Wood, V. .... 30
			Wright, Layman & Umney <i>Text</i> 482
			Wyeth, J., & Bro. .... 23

## CLASSIFIED LIST OF ALL ADVERTISERS

Those Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

<b>AORTIC ACID</b> Fuerst Bros. Greiff, E. W., & Co. Lorenz, H. Morris & Gallard (Salts)	<b>ALKALOIDS</b> Howards & Sons (Glasgow) Smith, T. H., & Co.	<b>BOTTLES</b> Aire & Calder Bottle Co. (Ld.) Barnett & Foster Farrell, R. H. Bratby & Hinchliffe (Lim.) Evans, Sons & Co. Gibberdon, H., & Sons Hearn, E. A., & Co. Isaacs & Co. Johnson & Jürgensen Kilner Bros. Poeths, H., & Co. Shirley, A. W. Toogood, W. "W. Brand Bottles" Youldon, E.	<b>CAPSULES</b> Denonai, J. (Medicinal) Duncan, Flockhart & Co. Evans, Sons & Co. Hooper, B., & Co. Lofthouse & Saltmer Mason, G. E., & Co. Richardson, John, & Co. (Leicester), Lim. Warrick Brothers	<b>CHEMICALS</b> Boehm, F. Boehringer, C. F., & Sohns Boulton, J., & Co. (Lim.) Bramwell, E., & Son Brunner, Mond & Co. (Lim.) Fletcher Fletcher & Stevenson Fuerst Bros. Goodall, Backhouse & Co. Greiff, E. W., & Co. Hill, A. S., & Son Hodgkinson, Treacher & Co. Howards & Sons (Fleisher) Levermore, Aug., & Co. Lofthouse & Saltmer Lorenz, H. May & Baker (Lim.) Morris & Gallard (Moss & Co.) Smith, T. H., & Co. Tyrer, T., & Co. Washington Chemical Co. White, A. P., & Sons Zimmermann, A. & M.
<b>ADVERTISING SPECIALITIES</b> Jawson, J. W. "See a. F. W."	<b>AMMONIA</b> May & Baker (Lim.) White, A., & Sons Woolley, Sons & Co.	<b>APPARATUS</b> Berend, O., & Co. Hicks, J. J. Orme, J., & Co. (Scientific) Ohlson, A. Perken, Son & Rayment Poeths, H., & Co.	<b>CARBOIC ACID</b> Calvert, F. C., & Co.	<b>CHEMICALS</b> Boehm, F. Boehringer, C. F., & Sohns Boulton, J., & Co. (Lim.) Bramwell, E., & Son Brunner, Mond & Co. (Lim.) Fletcher Fletcher & Stevenson Fuerst Bros. Goodall, Backhouse & Co. Greiff, E. W., & Co. Hill, A. S., & Son Hodgkinson, Treacher & Co. Howards & Sons (Fleisher) Levermore, Aug., & Co. Lofthouse & Saltmer Lorenz, H. May & Baker (Lim.) Morris & Gallard (Moss & Co.) Smith, T. H., & Co. Tyrer, T., & Co. Washington Chemical Co. White, A. P., & Sons Zimmermann, A. & M.
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<b>BITTO PLANT</b> [See SYRONS and ESSENCES.] Barnett & Foster Bratby & Hinchliffe (Lim.) Gueret Frères Mendocroft & Son Eylands, Dan (Lim.) Tyler, Hayward, & Co.	<b>BISMUTH PREP.</b> Hearon, Squire & Francis Hewlett & Sons Howards & Sons May & Baker (Lim.) Syme & Co. (Tyrer, T., & Co.) White, Alfred, & Sons	<b>BOOKS</b> Galenic Pharmacy (Grippe) Hargreaves, Dr., M.D. Squire, P. W.	<b>CATALOGUE</b> Maw, S., Son & Thompson May, Roberts & Co. Sanger & Sons	<b>CHEMICALS</b> Boehm, F. Boehringer, C. F., & Sohns Boulton, J., & Co. (Lim.) Bramwell, E., & Son Brunner, Mond & Co. (Lim.) Fletcher Fletcher & Stevenson Fuerst Bros. Goodall, Backhouse & Co. Greiff, E. W., & Co. Hill, A. S., & Son Hodgkinson, Treacher & Co. Howards & Sons (Fleisher) Levermore, Aug., & Co. Lofthouse & Saltmer Lorenz, H. May & Baker (Lim.) Morris & Gallard (Moss & Co.) Smith, T. H., & Co. Tyrer, T., & Co. Washington Chemical Co. White, A. P., & Sons Zimmermann, A. & M.
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Lewis, M. M.  
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Stevenson & Howell  
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Witrofsky, E.  
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Murdoch, J., & Co.  
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Vogt, G., & Co. [Co.]

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Liebig Co.  
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Fanning's (Powders)  
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Hovenden & Sons  
Kreat Haliva  
Lator (Phosphodyne, &c.)  
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March & Co.  
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Howards & Co. (Chemicals)  
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Evans, Sons & Co.  
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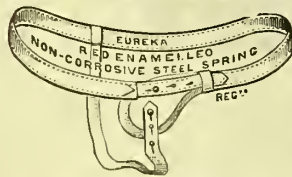
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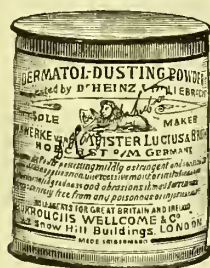
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AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—PHARMACEUTICAL SOCIETY OF IRELAND, SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION, MIDLAND PHARMACEUTICAL ASSOCIATION OF NEW ZEALAND, CENTRAL ASSOCIATION OF NEW ZEALAND, OTAGO PHARMACEUTICAL ASSOCIATION, PHARMACEUTICAL SOCIETY OF QUEENSLAND, PHARMACEUTICAL SOCIETY OF SOUTH AUSTRALIA, PHARMACEUTICAL SOCIETY OF WESTERN AUSTRALIA, and TASMANIAN PHARMACEUTICAL SOCIETY.

## CONTENTS: VOL. XLII. No. 14.

PAGE	PAGE
Adulterated Castor and Olive Oils. By Messrs. Parry and Estcourt..... 483	Next Week ..... 498
Bankruptcy Reports ..... 477	Notes of Novelties ..... 492
Business Changes ..... 478	Personalities..... 481
C. & D. Recipes ..... 491	Pharmaceutical Society of Great Britain:—
Correspondence ..... 496	Council Meeting ..... 472
Deaths ..... 478	Purification of Bismuth ..... 489
Editorial Comments:—	Scotch News..... 470
Farr and Wright on Tinctures 482	The Winter Session:—
Dispensed Medicines ..... 484	Glasgow Pharmaceutical Association; Society of Chemical Industry ..... 475
Nationalities in Russian Pharmacy ..... 485	Chemists' Assistants' Association; Edinburgh Pharmacy Athletic Club; Frighton Junior Association of Pharmacy ..... 476
Notes ..... 486	Trade Notes ..... 478
English News ..... 468	Trade Report ..... 493
Foreign and Colonial News ..... 471	William Ransom, F.L.S., F.S.A. 479
French Pharmaceutical News ..... 471	
Gazette ..... 489	
How to Mount Plants ..... 490	
Irish News..... 470	
New Company..... 489	

## COLONIAL TRADE.

WE have recently revised our foreign registers from special advices, and we intend to send a copy of the issue of April 29 to every non-subscribing chemist and dealer in druggists' goods whose name is on our lists (and we believe our manuscript directory is as nearly complete as possible), in South Africa, India, China, Japan, and the Straits Settlements, and throughout the West Indies.

We think wholesale and manufacturing firms willing to cultivate business in the countries named will do well to take advantage of the valuable opportunity thus offered.

The special circulation named will be, of course, in addition to our regular large subscription issue in the United Kingdom and abroad. For tariff, &c., apply to the publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

**CINCHONA-BARK.**—The corky layer of South American Calisaya bark has been examined by Dr. Schäfer, and he has found in it quinine equivalent to 2½ per cent. of quinine sulphate. The Java bark-cork contains the equivalent of 2 per cent.

## Summary.

IN an Editorial article we deal with the interpretation of the term "Dispensed Medicines."

A WATER FILTER has been introduced which removes cholera bacilli. It is described as a novelty.

MR. SAMUEL GALE, of John Bell & Co., Oxford Street, W., is dead. Mr. Gale acted as an examiner for twenty-seven years.

WE give a *résumé* of Messrs. Farr and Wright's research on alkaloidal tinctures, and call attention to some of its more important features.

THE position of native Russian pharmacists, and of foreign apothecars settled in Russia, as revealed by the recent census, is the subject of an Editorial article.

AT the meeting of the creditors of Mr. J. H. Pasmore, Tottenham Court Road, an argument took place as to the cause of his failure, and he was adjudged bankrupt.

ROBERT SPENCER, the West Bromwich chemist, has been committed for trial on the charge of murdering his mistress eight years ago. She died after an illegal operation.

IT appears to be necessary to carefully watch commercial castor and olive oils, as from the experience of Messrs. Parry and Estcourt, there is much adulterated stuff about.

WE give a portrait of, and notes of an interview with, Mr. William Ransom, of Hitchin, who is well known as a manufacturer of medicinal extracts, and as an archaeologist.

OUR Paris correspondent sends some interesting notes on the arrangements made by an English pharmacist in that city with regard to night duty. He also gives an account of M. Chassaing's encounter with burglars.

THE Glasgow Pharmaceutical Association wishes to widen its area by taking all the West of Scotland under its wing, and it is also proposed to deal with open surgeries by calling in the aid of the General Medical Council.

THE drug-markets have scarcely yet recovered from the holidays. Quinine and opium, the two "drugs of the day," have not quite maintained their recent improvement. Otherwise there is little of note in this department.

PIERCING pigs' ears and inserting "bear's foot" so as to cause intense inflammation and destruction of the cartilage, which is an Oxford prophylactic for swine fever, is not considered by the Oxford magistrates to be a cruel or illegal operation.

DR. ZINKEISEN at the meeting of the Scotch Section of the Society of Chemical Industry, this week, read a paper on aerated waters, which included some instructive comments upon the manufacture of seltzer-water, as well as an opinion as to what soda-water should be.

AT the meeting of the Pharmaceutical Council it was announced that there are sixteen candidates for the fourteen vacancies in the Council. The month's receipts from examination-fees was over 2,500*l*. It was agreed to require annuitants to make an annual declaration as to their means. The Research Committee submitted their report for the year, and Dr. Stevenson's report on the examinations was received.

THERE is an interesting lard case reported under English News. Mr. Kitto, a London analyst, reported that a sample contained 20 per cent. of cottonseed oil, and the seller was thereupon summoned. Dr. Campbell Brown says the lard is pure, and the defence is that pigs are fed on maize in Chicago, which makes their fat of higher iodine-equivalent than English lard. Mr. Kitto is to be allowed to reconsider his report.

OUR Correspondence Section contains a note from Mr. J. F. Brown, of Dover, on the preparation of creasote pills—he uses kieselsguhr as an agent: a letter from the Registrar of the Institute of Chemistry, in reply to Mr. Johnstone's letter of a fortnight since; a letter from the Organising Secretary of the American Pharmaceutical Association, offering to assist chemists who propose to visit Chicago this year; and several other notes of interest.



## English News.

*The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.*

### Testing Lard for Cottonseed Oil.

At St. Austell, on March 23, Emma Sturtridge, grocer, was charged at the instance of the police with having sold lard adulterated with 20 per cent. of cottonseed oil. The case was defended by Mr. T. Bellringer, of Liverpool. For the prosecution the certificate of the County Analyst for Cornwall, Mr. Benedict Kitto, London, was submitted, stating that the lard was adulterated with 20 per cent. of cottonseed oil.

Mr. Bellringer said he nominally appeared for Mrs. Sturtridge, but really for the refiners of the lard, Messrs. Fowler Bros. (Limited), Chicago, New York, and Liverpool. Their lard was refined at Chicago, and an element that might prove important in the case was the fact that the pigs were fed chiefly on maize, which was a very oily substance, and the fat of the pig, which was lard, consequently represented a higher iodine equivalent than ordinary English lard. The parcel left by the police with Mrs. Sturtridge had been analysed by Dr. Campbell Brown, Public Analyst for the county of Lancaster, the city of Liverpool, and other boroughs, and Dr. Brown had certified that the lard was pure, and absolutely free from cottonseed oil or any other foreign fats. He had examined it by five different tests, and all agreed in showing it to be genuine. Recently he was in a case in Northumberland where the analyst for the county had given a certificate similar to that forwarded by Mr. Kitto. But when his attention was called to the tests under which he had analysed the lard, he fairly and candidly, on applying another test, gave notice to the police that his previous analysis could not be relied upon, and the charge was withdrawn. After citing several cases of a like nature, Mr. Bellringer asked the Justices to consider whether justice would not be met by dismissing the case; but, if the Bench were against him in that suggestion, he would ask that a parcel of the lard be forwarded to Somerset House.

Sir Charles Sawle said the Bench thought it would be more satisfactory to all parties if the attention of Mr. Kitto were, through the chief constable, drawn to the certificate of Mr. Brown, and the case was adjourned in order that that course might be adopted.

### South London Water.

At the last meeting of the Lambeth Vestry the Sewers and Sanitary Committee reported that four more samples of water had been taken from the mains of the Southwark and Vauxhall and Lambeth Water Companies, and the report of the analyst as to their standard of purity was most unsatisfactory. One sample of the Southwark Company's Water contained of organic impurity .451; one taken from Lambeth Company's system was found to contain .523, and another .447. According to the scale prepared by Dr. Muter, who was recognised as an authority on the subject, water of this character must be regarded as undrinkable. The analysis had been forwarded to the London County Council with a request that it should be forwarded to the Royal Commission now sitting in reference to the water question. The Clerk to the Vestry had also been instructed to consider as to whether or not the Vestry could take any direct action against the respective companies.

### Theft of Cordials at Sheffield.

At the Sheffield Police Court last Saturday, Albert Searly, a single man, was charged with stealing three bottles of raspberry cordial, the property of his employers, Messrs. Wheatley & Son, manufacturers of hop bitters, cordials, &c. On Good Friday the manager noticed the prisoner leaving the works and carrying something bulky under his coat. On being accosted the prisoner said he was taking home a bottle of medicine. The alleged medicine proved to be a bottle of raspberry cordial. A detective found two other bottles of

cordial belonging to Messrs. Wheatley at the man's lodgings. The prisoner admitted the theft. Mr. A. M. Wilson, for the prosecutors, regretted that his clients could not see their way to recommend the prisoner to mercy. So many acts of pilfering had been committed of late at their works that it was necessary to make an example of someone. Being unable to pay a fine of 5*l.*, the prisoner was sent to prison for a month.

### The Effects of Laudanum and Chlorodyne.

John Singleton, 26, shoemaker, was indicted at the Doncaster Quarter Sessions, on March 29, for maliciously wounding Jas. Hy. Crouch, auctioneer and estate agent. Mr. Crouch was Singleton's landlord, and had given him notice to quit in consequence of his being in arrear with his rent. Singleton called at Mr. Crouch's office, and, when ordered away, stabbed him with a knife while walking upstairs. The wound was only slight.

The prisoner, who had been in prison for three months, said he had been suffering from neuralgia in his head, caused by trouble, and he drank such a quantity of laudanum and chlorodyne that he did not know what he was doing. He drank the contents of four bottles altogether.

The Recorder said he was inclined to believe the prisoner's statement, and, as he had been in prison three months, he hoped he had got rid of the habit of drinking poison.

Sentenced to a further imprisonment for 14 days.

### Serious Charge against a Chemist.

At North London Police Court on Monday, before Mr. Dickinson, Edward Cavel, 55, describing himself as a chemist, of Trinity Square, Southwark, but who was said to have been at one time a doctor of medicine, was charged with indecent behaviour towards two little girls in Victoria Park on the previous Saturday. The chief evidence was given by Mr. George Beddow, manufacturer of disinfectants, of Farrance Street, Burdett Road, Bow, who described what he saw from behind a bush, where he purposely hid himself in consequence of suspecting the accused. The little girls bore out his statement, but the prisoner stoutly denied the charge, and said he was only playing with the children as he would with his own. He asked the Magistrate if it was reasonable that he would do such things in full view of the public, but Mr. Dickinson said he would adjourn the case in order that further evidence might be called on both sides. Bail (two in 30*l.* each) was accepted for the re-appearance of the prisoner.

### The Chemist Charged with Murder.

Robert Spencer, chemist, West Bromwich, and Sarah Clansey, midwife, charged with the murder of Eliza Ann Evans, eight years ago, as already reported, were last week committed for trial at the West Staffordshire Assizes. The following were the statements of the prisoners referred to briefly in our last issue:—

Sarah Clansey said: "You understand this girl was pregnant by Spencer. She came to our house when we were living in Dudley Road. She stopped at our house some time. Spencer visited her on several occasions, and told me her condition, and asked me to perform upon her. She remained there some time, when I operated upon her; and I saw Spencer afterwards, and told him that the job had come off, but I did not like her symptoms. She was very ill, and I was afraid. He said, 'I hope things will go on right. I have got to go to Nottingham to-night.' This was on Saturday night. On the Sunday morning she died. I was not in the room with her when she died. My husband and Celeste called me up, and I saw that she was dead. Her dead body remained in the room till one of the evenings. In the meantime my husband saw Spencer. My husband told me he had agreed with Spencer to get rid of the body. I saw my husband bury the body in the garden one night, and then our landlord gave us notice to leave. My husband was in a dreadful way. He got the body up again, and dragged it into the cellar—(sensation)—and saw Spencer. Afterwards he cut the body up and burned it. While it was in the cellar he put a lot of chemicals over the body. I saw Spencer, and he said he was sorry for what had happened, and did not know what to do. All her clothes were burned."



Spencer's statement was as follows: "She went to Clansey's of her free will. I did not send her. Mrs. Clansey came to my shop, and said she was at her house. Then Mr. Clansey came in a few days afterwards, and told me Evans was dead. I made some such remark as 'Good God!' I called him into the other room out of the shop, and he said he was going to bury the body. He frightened me into giving him money; in fact, he took all there was in the cash-box, which was about 20*l*. I never saw the girl Evans when she was dead. From that time I should think for about two years he constantly came to extort money and take goods. When I was busy he would come in and say, 'I've come for some stamps,' meaning money. When he did not come himself he sent his wife. One occasion he was so impudent that my sister had to send for a policeman, who came in and turned him out. On one occasion when his wife came, my wife, who was in the house, heard her demand for money. They have had over 200*l*. from me in money, besides goods. He was constantly demanding money from me up to the time he was taken to gaol for deserting his children. When he came out of prison he came to my shop and demanded more money, and I refused to give him any, and then he turned round and said he had made a fool of me all along; so I did not believe there was anything in it. I do not believe there is anything in it now. Since he has been in New York he has written for money on two occasions. I did not reply to his letters, but simply destroyed them. I remember, when he came and said she was dead, he made the remark that she was quite black."

#### Giving Presents with Tea: An Alleged Nuisance.

An action was tried at the Birmingham Assizes, before Mr. Justice Kennedy, on March 30, in which Matilda Thompson, widow, the Town Arms, Brierley Hill, sued Joseph Bloomer, chemist and druggist, Brierley Hill, and Messrs. Broomhall & Co., tea-merchants, Brierley Hill, to recover possession of premises leased to the defendant Bloomer, and damages for breach of covenant. The plaintiff's case was that the premises 112 High Street, Brierley Hill, were let to the defendant Bloomer for fourteen years, on condition that no trade or business was carried on which might be a nuisance to her. Bloomer had sublet the premises to Broomhall & Co., and the business of an ironmonger and tea-dealer was carried on, and was a nuisance. The defence was that the premises were let to Broomhall & Co. by the consent of the plaintiff, and that the trade carried on was not a nuisance to the plaintiff. The plaintiff gave evidence asserting that she protested against the use of the shop for the purposes of a tea-dealer. Presents were given away to customers, among the presents being ironmongery, and that was directly in opposition to a clause in the lease. The defendant Bloomer alleged that plaintiff consented to the sub-letting of the shop, but in cross-examination he admitted that the affidavit he had made was somewhat misleading. On the Judge's suggestion a compromise was agreed to on the basis that judgment should be given for the plaintiff for 75*l*., Bloomer to give up the lease, and Broomhall & Co. to have a new lease for seven years.

#### Weak Spirit of Nitre.

At the Carnarvon County Sessions, on Saturday, H. O. Parry, grocer, was summoned for selling sweet spirit of nitre not up to the prescribed strength. The defendant admitted the offence, and said that evaporation had occurred owing to his using an ordinary cork instead of a glass stopper for the bottle. He was ordered to pay the costs.

#### Stealing from a Chemist's Till.

Jane Valentine, 18, a respectable-looking girl, was charged at the Kelvedon Petty Sessions last week with stealing 1*s*. 6*d*., the money of Mr. J. B. Frith, chemist, on March 3. Mr. Frith's assistant said the defendant went to the shop three or four times a week for paraffin. Witness was generally alone in the shop, and he had to go out after the paraffin. Having suspected the girl on previous occasions, he noted the money in the till when she came to buy paraffin on March 3. Witness shut the till level with the counter, and went out for the paraffin. On his return he found that the till had been moved, and he missed a shilling and sixpence from it. Witness said to defendant, "You've been

at my till," and she replied, "I'm sure I haven't." Witness sent for the constable, and defendant then said, "Pray forgive me this time." She handed witness back the 1*s*. 6*d*. When the policeman arrived defendant begged for mercy. The defendant was fined 3*s*., in default six weeks' hard labour. A week was allowed for payment.

#### Carbolic-acid Poisonings.

A married woman named Elizabeth H. Kershaw, 34 years of age, living at Union Street, Southport, drank a cupful of carbolic acid on Saturday last. She died two hours afterwards.

On Wednesday morning of last week a John Westley Smith, of Coldbath Road, Harrogate, was found in his bedroom ill and frothing at the mouth. A bottle of carbolic acid was found, and it was supposed that he had drunk from it. He died soon after.

A painful case occurred at Leeds on Saturday evening last. Clara Ward, a barmaid, lodging in Grafton Street, Leeds, being out of a situation, became very depressed. After receiving a letter and telegram on Saturday, she went to her bedroom. Shortly after her landlady heard her calling out that she had taken some carbolic acid. The landlady at once sent for medical assistance, and the girl was taken to the hospital, where she died shortly after being admitted.

#### A Swine-fever Prophylactic.

Mr. Edward Greening, farmer, of Cowley, near Oxford, was summoned before the County Magistrates at Oxford for cruelty to six pigs by performing an illegal and unnecessary operation on them. Inspector Jowett prosecuted on behalf of the Royal Society for the Prevention of Cruelty to Animals.

Mr. J. Walker, veterinary surgeon, said that he had been attending the defendant's pigs for swine fever. On March 17 he found six of them had their ears pegged. They had been pierced, or the skin raised, and a poisonous herb, which was called "bear's foot," inserted. It was introduced into the ear below the skin, and caused a tremendous swelling of the ears. When he saw the pigs the herb had killed every piece of cartilage that it came in contact with. It must have caused much suffering. Such an operation could not be beneficial for swine fever.

Defendant said it was supposed to prevent the pigs having swine fever, and he had done it to scores of pigs in his father's time.

The Chairman (Dr. Child) said the case would be dismissed; in fact, the charge was not within the meaning of the Act at all. The Act was to prevent wanton and unnecessary cruelty. He believed that the defendant had made a great mistake, and had performed an act unjustifiable and unnecessary; but his intention was not to do harm, but good, to the pigs. The case ought not to have been brought into court.

Mr. Hoskyns (a Magistrate) said he did not believe there was any cruelty at all in the mere puncturing of the ear.

Inspector Jowett asked if the Magistrates would be willing to state a case if application should be made to them.

Dr. Child: No; I think not.

#### Drug-contracts.

The Manchester Board of Guardians have accepted the tender of Messrs. Jas. Woolley, Sons & Co., for the supply of drugs till September 30 next.

The Horsham Board of Guardians have accepted the tender of Mr. R. Gallier, chemist, for the supply of expensive medicines to the Union.

Mr. A. Skene, of George Street, Richmond, has secured the contract for supplying crushed linseed to Richmond Workhouse, at 1½*d*. per lb.

#### Unlawful Possession of a Syphon.

At North London Police Court on Tuesday, before Mr. Lane, Q.C., James Parish, living at Holloway, was charged on remand with being in the unlawful possession of a mineral-water syphon. The syphon bore the name of "Idris," and the prisoner was detected trying to dispose of it to Mr. Edwards, chemist, of Hornsey Rise. The prisoner gave three different accounts of how he became possessed of the syphon, and contended that, as deposits were paid upon



them by shopkeepers and private customers, he had a perfect right to receive one as a gift, and to try to dispose of it. Mr. Lane treated the matter as one of unlawful possession, and sent the prisoner to gaol for fourteen days.

#### Embezzlement from Druggists.

George Beard, carter, in the employment of Messrs. J. J. Hulme & Co., druggists, Oldham, has gone to prison for two months for appropriating 23*l.*, money collected by him under the authorisation of the firm. He pleaded guilty, and said he had spent the money in drinking and gambling.

#### Poisoned by Acetic Acid.

A little boy named Mitchell, son of a coachman at Aylesbury, has died through drinking some acetic acid, which he found in a bottle in a cupboard.

#### The Brighton Workhouse Dispenser.

By the resolution of the Brighton Board of Guardians, Mr. H. Collings is to be continued in the appointment of dispenser at the workhouse, to attend daily and prepare and dispense medicines under the direction of the medical officer, at the salary of 15*s.* 4*d.* a week.

#### The Glass-bottle Strike in South Yorks.

Mineral waters having been in increased demand owing to the spell of warm weather, the circumstances might have been expected to be favourable to manufacturers, but, owing to the continued strike in the glass-bottle trade in South Yorks, an adequate supply of mineral-water bottles cannot be obtained, and the price has been advanced 2*s.* per gross. As there seems no prospect of the dispute soon terminating, mineral-water manufacturers are turning their attention to Germany, where bottle-making is a rapidly growing industry. One firm has offered to take from a German maker a five-years' supply if the rates are as low as the English rates. He states that the whole of the Sheffield orders, which amount to 20,000*l.* a year, are likely to be transferred from Yorkshire to Germany unless an early change comes about in the position of affairs.

#### Serving Two Masters.

The Sheffield Board of Guardians at their meeting on Wednesday, proposed to change the date of their sittings from the second and fourth Wednesdays in the month to the first, third and fifth Wednesdays, for the convenience of the four members who are also in the Town Council. A letter was read from Mr. G. T. W. Newsholme, chemist, Market Place, who is a member of the Board, expressing the hope that the change would not be made. He is, he said, a member of the Council of the Pharmaceutical Society, and has to attend their meetings in London, on the first Wednesday in each month. He took office on the existing arrangements for holding the Board meetings, and no alteration, he thought, should be made until after the next election of Guardians. Several members expressed regret at doing anything to inconvenience Mr. Newsholme, but thought the wishes of four should be considered before the wishes of one, and passed a resolution in favour of the change.

#### A Herbalist's Drugs.

At the Cardiff County Court on Wednesday, the South Wales Wholesale Drug Company (Limited) brought an action against Richard Price, described as a herbalist, of Bute Street to recover an account for drugs supplied. Defendant was represented by his wife, who, in answer to his Honour Judge Owen, said they paid 25*s.* a week rent for their shop. His Honour: I suppose that he sells drugs, though he is not legally authorised to do so? Mrs. Price: No, he does not; he is only a herbalist. His Honour: He appears from this account to be very much like a druggist. Mrs. Price: He is not. It is nearly six years ago since he got those things. His Honour said that was no reason why defendant should not pay. He must pay the debt within ten days.

## Irish News.

#### Return of the President.

Mr. Wm. Hayes, the President of the Pharmaceutical Society of Ireland, has returned to Dublin after a tour extending over two months in Egypt and Palestine.

#### Certificates Rejected.

Several certificates presented by intending candidates for the Pharmaceutical Licence examination have been rejected by the Certificate Committee. In some cases the full course of chemistry had not been completed, and a number of irregularities were exposed, which will shortly be the subject of investigation.

#### Pharmaceutical Examinations.

At the April examinations held during the past week fourteen candidates presented themselves for the Preliminary and eleven for the Licence examinations. The results are not yet published. The Assistants' examination will take place on April 12.

## Scotch News.

#### Conference of Chemists in Glasgow.

A circular has been issued to all chemists in the West of Scotland by the Council of the Glasgow Pharmaceutical Association inviting them to attend its first annual business-meeting on Thursday, April 13, at 12 o'clock noon. The members of this Association (declares the writer of the circular) have been surprised at the strength and position it has already attained in the pharmaceutical world. It has, therefore, great hopes in asking a wider field than Glasgow merely to share the burden and participate in the honour of assisting pharmacy to its proper level, in safeguarding its interests, and asserting its privileges against the mercenary encroachments characterising the spirit of the age.

The following is the programme of business to be brought before the meeting:—

1. That the name "Glasgow Pharmaceutical Association" be changed to "Glasgow and West of Scotland Pharmaceutical Association."
2. Election of office-bearers.
3. To move the following resolutions:—(1) "That, in the interests of pharmacy, and as a means of strengthening the Pharmaceutical Society, the Council of that Society be memorialised to extend to associates in business the title of 'member,' with its privileges in Council." (2) "That the Council of the Pharmaceutical Society be requested to communicate with the Medical Council regarding the conditions under which open surgeries are at present being conducted."
4. To discuss the recent decision referring to proprietary medicines containing poisons.

A smoking-concert is to be held the same evening in the Alexandra Hotel, Bath Street.

#### Glasgow Parish Medicines.

At the monthly meeting of the Glasgow City Parochial Board on March 23, the following orders were passed:—Twenty gallons best olive oil, from Messrs. Brown Bros. & Co., chemists, at 4*s.* per gallon; 25 gallons best Norwegian cod-liver oil, from The Glasgow Apothecaries' Company, at 3*s.* per gallon; 320 lbs. best castor oil, East India bleached, from the Glasgow Apothecaries' Company, at 4*d.* per lb.; 112 lbs. best senna-leaves, from The Glasgow Apothecaries' Company, at 6½*d.* per lb.; and 7 lbs. gum arabic, from The New Apothecaries' Company, at 1*s.* per lb. These purchases are all subject to 5 per cent. discount. At the same meeting an application was submitted from Mr. Robert Walker, assistant apothecary, for an increase of salary. As Mr. Walker has been upwards of five years in the Board's employment, and has performed his duties satisfactorily, it was unanimously agreed to raise his salary from 40*l.* to 45*l.* per annum.

AN AMERICAN has taken out a U.S. patent for a label upon the back of which there is printing, which can be seen from the back of the bottle upon which it is pasted.



### Edinburgh Chemists and the Medicine-stamp.

The Inland Revenue officials have been very busy of late with chemists in Edinburgh. Penalties amounting in the aggregate to over 100*l.* have been claimed from chemists within the last week or two in reference to the sale of medicines not duly stamped.

## French Pharmaceutical News.

(From our Paris Correspondent.)

**THE PARIS EXHIBITION OF 1900.**—The question of holding an International Exhibition in Paris was easy enough to decide in the affirmative, but the question of a site is far more difficult to settle, and it still remains in abeyance. There is however, a general opinion that the Champ de Mars will again be selected, but parties interested in other suitable spots form an energetic opposition. French pharmacy has, naturally, very little to say in the matter; it must meekly accept the inevitable. But the trade here will probably do better as regards space and disposition of exhibits than last time, and even at this long intervening space of time, when the "may be's" are so numerous, it behoves English pharmaceutical manufacturers and the many allied trades to keep the 1900 Paris Exhibition well in view.

**IN THE VERY ACT.**—M. Chassaing, the well-known Paris chemical-manufacturer, rendered a good service to a neighbour last Thursday night. He was aroused in the night by an unusual noise in the street where he resides—Rue d'Amsterdam, near the Gare St. Lazare. On going to the window he saw three men breaking open the shutters of the next house, the owner of which was out of town. M. Chassaing hastened to get his revolver, and on returning found that two of the burglars had entered the house, while the third kept watch outside. He fired three times on the latter, who decamped, however, unhurt, and was soon joined by the other two. M. Chassaing then sallied forth, and informed the police of what had occurred. The caretaker of the house slept on the second floor in the back, but had heard nothing, though a crowbar was found in the house. The police commissary of the quarter has commenced the usual inquiries, and M. Chassaing's friends compliment him cordially on his prompt action.

**FROM THE CELLAR.**—Mr. S. M. Burroughs was in Paris at Easter, and on Monday evening entertained a party of friends to dinner at Lemardelay's restaurant. At table someone related a reminiscence of the host's start in life in pharmacy. It was with the firm of John Wyeth and Brother, of Philadelphia. When the new boy entered on his duties one Monday morning he was left for some little time ignored. This scarcely suited his nature, so he stepped up to the head of the firm and said, "Mr. Wyeth, I would like something to do, please." "Something to do my lad? Certainly," said the chief, "step down stairs and sweep the cellar out." When young Burroughs had done the work two or three times over, he returned to Mr. Wyeth again, saying, "I have swept the cellar, sir; can you give me anything else to do?" Other and more congenial work was found for the new hand, and he soon rose to the position of traveller, covering in his journeys the whole continent of North America. Mr. Burroughs has left Paris to join his family in Switzerland.

**NIGHT-DUTY IN PARIS.**—"I have read with interest your remarks on night-duty in this city," said the courteous proprietor of an English pharmacy in the neighbourhood of the Place Vendôme to the correspondent of *THE CHEMIST AND DRUGGIST* in the course of a chat on Good Friday afternoon. "I find it advisable to make a special arrangement for dispensing after closing-hours, and have issued the following notice, which is used as a label on packages:—

NIGHT-DUTY.—A competent assistant is always on duty during the night, but our customers are earnestly requested to have recourse to us only in cases of emergency. An extra charge is made for retail or dispensing between the hours of closing and opening the establishment.

The extra charge," he went on, "is 5*l.* for each customer, and this amount goes entirely to the assistant. One night

recently an assistant of mine made 15*l.*, and sometimes they earn a good deal by this means in the course of a month." "I see by the notice that you do not encourage people to come at night," said *THE CHEMIST AND DRUGGIST* representative, "but when does the pharmaceutical night commence? I notice sometimes that you keep open late." "Well," was the reply, "we close at 10 P.M., and night with us is from that hour until 8 A.M., when the pharmacy is opened again. The 5*l.* extra fee is specially fixed to act as a deterrent. People do not object to it as a rule, though anecdotes could be told of young fellows who call for cold cream at an unearthly hour, and, when told the supplementary charge, prefer to postpone the purchase until next day." "You are in a specially favoured neighbourhood, sir, and your extra fee may not be found too high; but what if you were in business a little more eastward?" "In that case, of course, I should charge accordingly. I see by *THE CHEMIST AND DRUGGIST* that 1*l.* is asked by some pharmacists in Liverpool, but I scarcely consider that enough. My neighbour has a sort of sliding-scale for night-fees, and it seems to work." "I daresay doctors, for instance, are glad to know of a pharmacy where they may rely on getting prescriptions made up at night?" was the next query. "That is so. A medical man told me not long since that he had rung at five pharmacies in coming to the Place Vendôme one night without getting a reply." "I am told that the introduction of the so-called '5-o'clock tea' in Paris has thrown the dinner-hour much later amongst medical men." "Yes," said the pharmacist. "it has. The English doctors dine, say, at 8 P.M., and then make a few visits about 9, hurrying to get their prescriptions made up by 10 P.M. I remember the time when at 5 or 6 P.M. business was absolutely finished for the day—so much so that it was as though a curtain had been drawn down."

## Foreign and Colonial News.

**A RENOVATED BERLIN PHARMACY.**—The new building in which Schering's Grüne Apotheke in Berlin is located has just been opened with much ceremony. The building, both as regards outward appearance and internal fittings, is said to be one of the finest pharmacies in the world.

**THE TITLE "PHARMACEUTIST."**—The *American Druggist* mentions, in connection with the dissolution of the firm Henry C. Blair's Sons, Philadelphia, that Henry C. Blair, the founder of the firm, was the first apothecary to use the title "pharmacist," and his sign caused considerable comment at the time.

**A RUSSIAN MILLIONAIRE'S BILL.**—A millionaire citizen of Kieff, M. Tereschtschenko, recently had occasion to proceed to Moscow to consult a prominent medical man, Professor Sacharin. The professor received an honorarium of 14,000 roubles (about 1,000*l.*), and his assistant one of 2,000 roubles (150*l.*), for his services. The medicines prescribed by Professor Sacharin were forwarded to his patient from Kieff to Moscow by special train.

**THE DRUG-WAR IN CHICAGO** is not on the increase. During the past month, says the *Western Druggist*, the cutters have received no accession to their ranks. Singularly enough, the cutting has not crossed the river to invade the North Side or the West Side, where the greater number of pharmacies are located. Within two weeks fourteen stores have been placed under chattel mortgages, and they had full prices, so that there is no great inducement to adopt lower rates. During the first year of cutting in New York there were 204 failures. With this and similar experience in view, the retail druggists of Chicago pause before they take a step which can never be retraced.

**A FREE TRIP TO THE CHICAGO EXHIBITION** is offered to American retailers of velvet-skin soap and powder. It is a guessing-competition, and clerks may compete as well. What they have to do is to guess how many tickets will be taken at the gates of the Exposition, as officially announced by the Finance Committee for the day of July 4, 1893. The firm (Elliott-Mortimer Manufacturing Company, New York) give a guessing-coupon for each cake of soap and each box of



powder in stock, and all the goods that the firm send out between now and July 4 will have coupons added. Six trips of ten days each will be given—three to those who guess nearest the number, and three to unsuccessful competitors who send in the greatest number of coupons.

**UNITED STATES PHARMACY LAW.**—In a Bill which is being promoted by the Delaware Pharmaceutical Association it is proposed that "a poison shall be any drug, chemical, or preparation which, according to standard works on medicine or materia medica, is liable to be destructive to adult human life in quantities of 60 grains or less." Such poisons shall only be sold under what we regard as the second part of the schedule conditions, and the conditions of the first part apply to poisons which, in doses of 5 grains or less, destroy life. It is, however, provided that the provisions shall not apply to the dispensing of physicians' prescriptions, nor the sale of articles commonly used as insecticides. The Massachusetts Pharmacy Board also seeks, by fresh enactment, to deal with pharmacists who are guilty of conduct which may be regarded as "disgraceful in the professional sense."

**NEW YORK CHEMISTS' ASSOCIATIONS.**—The New York Society of Apothecaries was organised in the beginning of this year, its aims being somewhat similar to those of the Chemists' Assistants' Associations of London and Edinburgh. Unlike these latter, however, membership is not restricted to assistants. The New York Deutsch-Amerikanischer Apotheker Verein is the only drug-organisation in that city which offers anything in the way of social features to its members, and it is this need that the Apothecaries' Society is intended to supply. The first public reception was held on March 21, and included dancing and a dinner. Among the guests and speakers at the dinner were Mr. Alfred H. Mason, who spoke of the Chemists' Assistants' Association; Mr. Victor Koska, President of the Deutsch-Amerikanischer Apoth. Verein; and Mr. Elijah Molloy. The dinner was presided over by Mr. Caswell A. Mayo, editor of the *American Druggist*.

**A COCAINE-RAVAGED CITY.**—The city of Jackson, Michigan, is reported to be "in a fever of excitement" owing to disclosures which have been made, showing that the cocaine habit has taken hold of many of the most prominent citizens. The ravages of the drug, so the local papers say, have been frightful, and, as a consequence, the whole community is agitated to its very foundations. All the trouble appears to have arisen from the fact that a local physician, himself a confirmed taker of cocaine, has brought many of his patients under its influence. Many of "the best class of citizens" are now addicted to the habit, and the local press publishes a list of hundreds. Whisky-drinking follows the ravages of cocaine upon its victims, and they pour down a dozen drinks of liquor in an hour sometimes. A majority of the victims became addicted to cocaine before knowing what they were taking, it having been administered for sore throat, hay fever, and many minor ills.

**OPIUM-GROWING IN BRITISH INDIA.**—According to official reports, the cultivation of opium in Bengal is becoming unpopular with the farmers, because it is found that other crops which are less delicate are more remunerative in an average year than poppy. Exact data are not forthcoming, but it is known generally that while the area under poppy has been steadily decreasing, that under other crops has increased largely. The Benares opium-agent reports that some European firms have organised a regular system of advances to stimulate the cultivation of cereals. Poppy, it is added, is no longer cultivated on the best soil everywhere, but has to take its chance with other crops. The effect of this competition is so keenly felt by officials that already there is a talk of holding out increased inducement to the ryot to take up the cultivation of the poppy, in the shape of more liberal loans for irrigation and a rise of 8a. per seer in price; and the Government is advised to make an attempt to increase the outturn of the poppy-crop by exercising greater supervision over the cultivators. From the prospect of a yearly decreasing area under poppy, and a yearly increasing area under cereals, the Opium Department turns with a sense of relief to the fact that six European planters in Tirhoot, who formerly cultivated indigo, are now putting their fields under poppy.

## Pharmaceutical Society of Great Britain.

### \*COUNCIL MEETING.

THE members who attended on Wednesday morning were Messrs. Allen, Atkins, Bottle, Carteighe (President), Cross (Vice-President), Grose, Hampson, Harrison, Hills, Johnston, Leigh, Martin, Martindale, Newsholme, Richardson, Southall, Storrar, and Warren. After the usual preliminary business, including the election of a large number of members, &c., the Secretary was asked to read the names of those who have been proposed for membership of the Council at

### THE ELECTION NEXT MONTH.

These are the following:—

Abraham, A. C., Liverpool.  
Allen, C. B., London.  
Atkins, S. R., Salisbury.

\* Bateson, Thomas, Kendal.  
Bottle, A., Dover.  
Carteighe, M., London.  
Cross, W. G., Shrewsbury.  
Greenish, Thomas, London.  
Hampson, R., London.  
Hills, Walter, London.  
Leigh, Marshall, Brighton.  
Martin, N. H., Newcastle-on-Tyne.  
Newsholme, G. T. W., Sheffield.  
Southall, Alfred, Birmingham.  
Warren, W., London.

\* Young, J. Rymer, Warrington.

Those marked (\*) are not on the Council at present; the others are. Messrs. J. H. Baldock (Croydon) and Arthur Savory (London) were also proposed, but did not wish their names to be put forward for election.

As for the auditors, those who are at present officiating in that capacity—viz., Messrs. Butt, Lescher, Stacey, C. Umney, and Yates—have been renominated.

### DEATH OF MR. GALE.

The PRESIDENT, next rising, said that since the last meeting of the Council the Society had lost by death one of its most valued members—a gentleman who had been brought up in the school, and who had shed lustre on the Society. He referred to Samuel Gale. It was not known to many that, after he had gone through the course of training in the school, he had remained there as a demonstrator under Professor Redwood, and in that capacity he had been greatly beloved. Mr. Gale then went into business on his own account, but he did not long remain there, for Mr. Jacob Bell wanted someone to manage his firm's laboratory, and in consultation with Redwood it was agreed that Samuel Gale was the man for the position. He was offered it, and accepted it. After years of work he had died a partner in the business, and was as much beloved by those in the business as those out of it. From 1864 to 1891 Mr. Gale had been an examiner. He occupied that position when he (Mr. Carteighe) was first examined, and when he became a member of the Board he found Mr. Gale to be one of the most enlightened men on it, imbued with the true educational spirit, and desirous of making the examinations progressive. They became intimately associated in that work, and he might say that he had known Mr. Gale longer than any other man living. Mr. Gale had retired from the Board a few years ago owing to his approaching the age of retirement. Strangely and sadly enough, his health from that moment began to break down. An insidious disease began to assert itself, and it was possibly as well, continued Mr. Carteighe [who was now deeply moved], that death had ended his sufferings. They, as a Council, desired to sympathise with Mrs. Gale, and their sympathy was also extended to their colleague [Mr. Walter Hills] who in the past few years had been so often afflicted.

The vote of condolence having been read,

The VICE-PRESIDENT, in a few sympathetic sentences, seconded it, and it was carried unanimously.



## FINANCE.

The report of the committee showed that on March 31 the following balances stood to the credit of the various departments:—

	£	s.	d.
General Fund account.. .. .	3,604	18	8
Benevolent Fund account .. .. .	820	12	11
Donation account .. .. .	30	7	6
Orphan Fund account.. .. .	48	14	10

Starting the month with a balance of 1,029*l.*, the Secretary received sums amounting to 3,660*l.*, these being—Penalties and costs, 82*l.*; subscriptions, 1,080*l.*; and examination-fees, 2,500*l.* Payments amounting to 1,015*l.* were made in March, and a sum of 2,492*l.* was now required to pay salaries and annuities, printing, rent and taxes, current expenses, and sundries. For the Benevolent Fund subscriptions amounting to 450*l.* had been received.

Mr. MARTINDALE, who had presided at the Finance Committee meeting, vouched for the accuracy of the report and moved its adoption.

Mr. MARTIN seconded, and the motion was agreed to.

## AFTER TWENTY-FIVE YEARS.

Mr. BREMIDGE, as Registrar, intimated that he had received from Mr. Theophilus Wakeford, Cowbridge Road, Cardiff, a declaration that he had been in business as a chemist and druggist before 1868. He had made inquiries, and being satisfied as to the correctness of the report, had placed Mr. Wakeford's name on the register.

## BENEVOLENT FUND.

The committee had considered five applications, and recommended the following grants:—

Twenty pounds to the widow (aged 41) of a registered chemist and druggist and subscriber to the fund. Applicant's husband was in business many years, but failed in 1889, and died last month, leaving her with four children unprovided for. (London.)

Fifteen pounds to the widow (aged 65) of a member. Applicant has had four previous grants of like amount, the last in 1884. (Northampton.)

Fifteen pounds to a registered chemist and druggist (aged 85) who subscribed to the fund. He was in a small way of business for fifty years, but has now been compelled to give up. (Preston, Lancs.)

Ten pounds to an associate and member (aged 67). Has recently failed in business, and is unable to obtain any employment, owing to his age. (Wimbledon.)

The committee also recommended the following addition to the regulations of the Benevolent Fund:—Every person in receipt of a pension shall, in December of every year, make, on a form to be sent by the Secretary for that purpose, a declaration as to his or her circumstances. In default of such declaration being made, the Council may, if there be no sufficient reason for the omission, withhold further payment of the pension.

## FORM OF DECLARATION.

I, \_\_\_\_\_, residing at \_\_\_\_\_ and at the present time in receipt of a pension from the Benevolent Fund of the Pharmaceutical Society of Great Britain, do hereby solemnly declare that since my election to the benefits of the fund, I have not become possessed of or acquired an interest in any kind of property or income whatever. And I further declare that my petition to the Council in \_\_\_\_\_ correctly describes my present position, and that my friends and relatives are not able to, and do not, assist me to any greater extent than is stated in the petition. \_\_\_\_\_ Signature.

I hereby certify that the above was signed in my presence, and that the statements made are, to the best of my belief, accurate.

Signature of a Minister of Religion,  
of a Member or Associate of the  
Pharmaceutical Society, or of a  
Donor or a Subscriber to the  
Benevolent Fund.

In the draft as submitted the italicised words were "my personal knowledge." They gave rise to a long discussion, of which the following is the shortest possible abstract.

The PRESIDENT thought the declaration was a proper one.

Mr. ATKINS thought a magistrate should have been included amongst the attestors. He would not emphasise the words "to my personal knowledge." Some people were very sensitive about signing such a declaration, and it would be difficult for anyone to get accurate personal knowledge of an annuitant's circumstances.

Mr. JOHN HARRISON concurred. The words "to the best of my belief" would meet the case.

Mr. RICHARDSON did not think it necessary to add a magistrate. The committee had considered that, and thought, since magistrates are over-worked—(laughter)—and there are ministers of religion in every village, that the attestors should stand as they were in the draft. He also reminded the meeting that false declarations made before a magistrate are treated as perjury, so that, however the form should be worded, there was sufficient protection.

The PRESIDENT thought the words "personal knowledge" were really necessary, but he did not have the same high opinion of magistrates' certificates as Mr. Richardson had. He remembered that they had had great trouble with them after the 1868 Act passed.

Mr. CROSS said they must underline "to my personal knowledge."

Mr. RICHARDSON: The form is not at all too stringent.

Mr. HILLS said he was sorry to hear the President's remarks, for he sympathised with Mr. Harrison. He supposed that the form was similar to what other societies used, but he did not like it. What if the declaration were made, and they had reason to suspect its truthfulness: would there be further correspondence?

Mr. BOTTLE differed from the President in regard to the 1868 certificates and this one being alike. The former dealt with a public matter, this with an individual's private resources and means—a thing which it would be exceedingly difficult for anyone to have personal knowledge of.

Mr. ATKINS: Not only difficult, but impossible.

Mr. NEWSHOLME said the Secretary stated that the circular would not go to everyone, but the circular itself said it would.

There was some cross-talking about this, and it was ultimately agreed that it should be sent to every annuitant.

The PRESIDENT now said that they would not get much further with the matter by discussing it. It was perfectly astonishing how druggists knew about the means of other persons—(laughter)—and they might take it that if any of their annuitants got into better circumstances the fact would come to be known. It was permanent additions to income that were aimed at; not a casual 5*l.* note.

Mr. HARRISON gave an example of how his proposed alteration would act. He had been in the habit of signing a certificate for a lady who had a grant from a fund for Scotch ministers' widows. He lost sight of her for some time, then she came in with the certificate again. How could he say from personal knowledge that she was a widow still? The advantage of "the best of my belief" came in there.

Mr. SOUTHALL seconded Mr. Harrison's motion, and the President rather than divide the Council, made the alteration and submitted the amended draft to the meeting. It was agreed to without any wild outburst of cheering.

## MISCELLANEA.

The Library, &c., report was submitted and adopted.

The President was instructed to draft the annual report.

Mr. Clift, of Dorking, is retiring from business, and Mr. Evans, High Street, Dorking, was appointed local secretary in his place.

Mr. Ezra J. Bullen, Lavender Hill, S.W., was appointed divisional secretary for Battersea in succession to Mr. C. M. Luxmore, who has given up the retail business.

The professors reported on the work in their classes, which have now completed the first and longer course of study.

An account was also submitted for payment.

## DR. STEVENSON'S REPORT.

The PRESIDENT read the report by Dr. Thomas Stevenson to the Privy Council on the examinations conducted by the Board for England and Wales during the year ending March 31. This contained the following particulars:—



*Preliminary Examination.*

	Per cent.
Candidates examined .. .. .	1410 .. —
„ passed .. .. .	670 .. 47.5
„ failed .. .. .	740 .. 52.5
Failed in Latin .. .. .	492 .. 34.9
„ English .. .. .	477 .. 33.1
„ Arithmetic .. .. .	633 .. 44.9

The figures show a decided improvement in arithmetic, but the failures in English have sensibly increased. "Apprentices in pharmacy apparently do not appreciate the necessity of passing the examination before commencing the practical study of their business. I hope," writes Dr. Stevenson, "that before long it will be made obligatory to pass this examination before commencing apprenticeship."

*Minor Examination.*

	Per cent.
Candidates examined .. .. .	707 .. —
„ passed .. .. .	247 .. 34.9
„ failed .. .. .	460 .. 65.1
Failed in chemistry .. .. .	215 .. 30.6
„ botany .. .. .	46 .. 6.5
„ materia medica .. .. .	39 .. 5.5
„ pharmacy .. .. .	41 .. 5.8
„ prescriptions .. .. .	36 .. 5.1
„ practical pharmacy and dispensing ..	116 .. 16.4

The failures were greater than in the previous year, "especially in chemistry and the art of dispensing correctly, which are the fundamental branches of the knowledge required of the chemist and druggist. The recent changes made in the examinations test more severely the practical knowledge of the candidates, to the disadvantage of those who have had little laboratory experience."

*Major Examination.*

	Per cent.
Candidates examined .. .. .	132 .. —
„ passed .. .. .	52 .. 39.4
„ failed .. .. .	80 .. 60.6
Failed in chemistry and physics .. .. .	47 .. 35.6
„ materia medica .. .. .	19 .. 14.4
„ botany .. .. .	25 .. 18.9
„ practical work .. .. .	17 .. 12.1

Nineteen only of the forty-seven failures were in chemistry. The practical work now insisted on is felt to be a severe test by those whose knowledge has been acquired chiefly from books and oral teaching, and not in the laboratory.

In concluding his report, Dr. Stevenson states that the new regulations have greatly improved the examinations, and he notes "with satisfaction" that chemists and druggists are now examined on the law relating to the sale of poisons, as far as they are affected by it.

Mr. BOTTLE said the report seemed to be a very satisfactory one, and asked if there were any data which would show how Scotch candidates compared with the English in the Preliminary examination. It was their experience that the former did better than the latter in the Minor and Major, and he wished to know if the same applied in the Preliminary.

The PRESIDENT said that the examination was in the hands of the College of Preceptors, but the results at each of the centres were published and they might give the information.

*RESEARCH REPORT.*

The PRESIDENT next submitted the report of the Research Committee, 1892-93. This showed that in addition to the director and the demonstrator, there have been nine workers in the laboratory during the year. The committee have appointed Mr. E. F. Harrison as demonstrator, to succeed Mr. Dymond, whose resignation they regretted. The advances in the investigation of the aconite alkaloids were mentioned, and it was considered that through the results the way is being prepared for the production of pharmaceutical preparations of aconite having a constant strength. A second grant of 150*l.* has been received from the Royal Society in aid of the investigations on aconite and croton oil.

The following are the titles of the papers which have been published since the last report:—

"The Existence of Two Isomeric Oximes of Acetic Aldehyde," by Professor Dunstan and Mr. T. S. Dymond.

"Mercuric Zinc Cyanide: a Study of the Mode of Formation and Properties of an Insoluble Double Salt," by Professor Dunstan.

"The Identity of Caffeine and Theine and the Reactions of Caffeine with Auric Chloride," by Professor Dunstan and Mr. W. F. J. Shephard.

"Contributions to our Knowledge of the Aconite Alkaloids. Part IV On Isaconitine," by Professor Dunstan and Mr. E. F. Harrison.

"Contributions to our Knowledge of the Aconite Alkaloids. Part V. The Composition of some Commercial Specimens of Aconitine," by Professor Dunstan and Mr. F. H. Carr.

The report proceeded to say that several other inquiries have also been prosecuted in the laboratory during the past year, and it is expected that the results will be reported on during the present session.

With respect to finances, although the Royal Society contributed the sum of 150*l.*, there is a small balance against the committee in the year's accounts, owing partly to the large number of workers, and partly also to the expensive materials required in alkaloidal investigations.

It will, therefore, be necessary to appeal for further pecuniary assistance from the Royal Society to meet the expenses of the present session, which will certainly not be less than those of last session. It is felt that the results which have hitherto been obtained in the laboratory will demonstrate the importance both to science and practice of continuing, and, if possible, of extending these pharmacological inquiries.

The committee again express their high appreciation of the educational value of the systematic training in the methods of investigation which the workers in the laboratory receive under the able direction of Professor Dunstan.

The principal published papers from the Research Laboratory have been collected and issued as a separate volume.

The report was signed by Mr. M. Carteighe, Mr. W. G. Cross, Mr. T. Greenish, Mr. G. F. Schacht, Dr. T. Lauder Brunton, Mr. Charles Ekin, Professor M. Foster, and Professor E. Frankland.

The PRESIDENT, in moving that the report be entered on the minutes, stated that the number of workers was equal to the average, and he hoped that someone would found another research scholarship, similar to the Redwood one, so as to encourage students to devote longer time to this the highest branch of training. He commended the aconite research, and said that their only difficulty was to get the products adequately tested physiologically. It was one of the objects of the laboratory to have this side of the subject thoroughly investigated.

Mr. MARTINDALE said that after *Aconitum Napellus* had been investigated, Japanese aconite, which was imported in large quantities, and *Aconitum Ferax* would also require attention. They were said to be much more powerful than the *Napellus*, and there are several kinds of Japanese aconite.

Mr. CROSS said that a great field of work was still open for the laboratory.

The PRESIDENT remarked that he had forgotten to mention that Miss Boole had been assiduously pursuing her investigation on croton oil, and he was afraid that the peculiar dangers of the research had affected her health. She had been laid up for a time, and that had stopped the research.

Mr. HAMPSON said he was glad to note that the laboratory was likely to receive further support from outside bodies. They had to be careful, for they were at present spending upon the laboratory all they could afford. The Royal Society had given a grant, and he thought he had heard someone say that even the Chemical Society was to give them help.

Mr. ATKINS said that as the Society had spent a large sum of money on the aconite research, it was important that they should emphasise the fact that physiologists were doing their share in the matter. Where had their results been published?

The PRESIDENT explained that Professor Cash had made his communications to the Royal Society. Dr. Lauder Brunton and Dr. Sydney Martin had also given assistance. It was always difficult to get physiologists to stick to the



line of action they wanted, as so many interesting side-issues were discovered.

The report was then received, and after some correspondence had been attended to, public business was brought to an end.

## The Winter Session.

### GLASGOW PHARMACEUTICAL ASSOCIATION.

THE closing meeting of the session was held on the evening of March 30, and was well attended, the President, Mr. W. L. Currie, being in the chair.

THE PRESIDENT referred to the question recently raised in the House of Commons about chemists requiring to take out a compounders' licence for the sale of

#### GINGER-WINE ESSENCE,

and remarked that the order issued by the Inland Revenue had caused a good deal of ill-feeling, perhaps unnecessarily. At first sight it seemed a great hardship that the sale of those preparations which had been allowed for such a long time should have been interfered with now; but the answer of the Chancellor of the Exchequer was reassuring, and was said to be satisfactory.

Mr. McMILLAN said that to him the reply of the Chancellor of the Exchequer seemed somewhat vague. What did he mean by an "essence containing not more than 3 per cent. of alcohol"? Ginger-wine essence contained about 30 per cent. Certainly it did not contain 3 per cent. when mixed. Mr. McMillan said he supposed everybody was selling it, being satisfied with the reply, but he did not care about risking it.

Mr. BOYD: You can sell an essence that does not contain more than 3 per cent.

Mr. McMILLAN: Yes, but you cannot make an essence like that. Another question crops up as to the interpretation of a "flavouring-essence." From the reply of the Chancellor of the Exchequer it looks to me as if essence of ginger wine and essence of cayenne were flavouring-essences. Does it amount to this—that they are not going to interfere with us because they are flavouring-essences?

Mr. BOYD: The essence is to be used as a beverage, not for flavouring purposes.

Mr. McMILLAN: Ginger and cayenne are in the essences, consequently they are flavouring-essences.

THE PRESIDENT remarked that the Dumfries people said they were very well satisfied with the answer given.

Mr. McMILLAN asked on what ground they were satisfied.

THE PRESIDENT: They are simply satisfied because a decision on the point has been come to.

Mr. McMILLAN: To me the thing is insoluble.

Mr. BOYD suggested that the President should, in the name of the Association, send up a copy of the ordinary formula for ginger-wine essence to the Board of Inland Revenue authorities, with the query whether or not chemists could make and sell an essence according to that formula.

In reply to Mr. Adams,

THE PRESIDENT stated that if these essences were sold for the purpose of making a beverage, the seller was liable to an Excise prosecution.

Mr. FINDLAY: Even if you put them in separate bottles? If I sell the ingredients in different bottles I defy the Inland Revenue to touch me. I am not supposed to know what they are for.

Mr. BOYD remarked that ginger-wine essence could be made from many standard liquors which contain practically no alcohol at all.

Mr. MOIR said he used some such liquors, and they answered the purpose admirably.

After some further conversation on the subject, the President was instructed to write to Mr. Sutherland, Dumfries, for his opinion of the decision on the point conveyed in the reply of the Chancellor of the Exchequer, and the Executive Committee were to be at liberty afterwards to state a case to the Board of Inland Revenue, as suggested by Mr. Boyd.

The question of the correct formula was mooted, and

THE PRESIDENT stated that that point had for many months back been discussed in the columns of THE CHEMIST AND DRUGGIST, which had taken up this matter very strongly. A number of formulæ were published in THE CHEMIST AND DRUGGIST, and they were submitted to the Board of Inland Revenue, and a decision in every case given against the sale of those essences.

This matter was also left in the hands of the committee.

A conversation next took place as to what to dispense when physicians prescribed

#### VASELINE.

THE PRESIDENT pointed out that there seemed to be some dubiety with certain chemists. One authority states that it was an unwritten law in most pharmacies that, unless specially mentioned, white vaseline should be dispensed. He did not think, however, that that was the general way in which vaseline was dispensed in Glasgow. It might be useful for them to decide that point.

Mr. BOYD thought white vaseline should be used if the other ingredients in the prescription were white.

THE PRESIDENT: You mean to say that white vaseline should be dispensed whether it is ordered or not?

Mr. BOYD: Yes.

Mr. ROBB said his experience was that brown vaseline was dispensed, and white only if it is ordered. He had never used white paraffinum molle.

Mr. FINDLAY said he supplied Chesebrough's vaseline as an ordinary rule. It was a matter of commercial honesty.

Mr. ADAMS would vote for yellow vaseline.

Mr. RUSSELL thought physicians should prescribe "white" or "yellow" vaseline as they wished it dispensed.

Mr. MOIR: I have never used anything but yellow, except when ordered.

Mr. McMILLAN: That is my experience also.

A number of other master-chemists gave similar testimony, including Mr. CURRIE, the President.

It was then agreed to adhere to the practice of dispensing yellow vaseline when "vaseline" is prescribed; and, when the *A/b.* is ordered to dispense accordingly.

### THE ANNUAL REPORTS

were next submitted.

Mr. FINDLAY, the Treasurer, reported that the membership of the Association was now 116, and that the income from all sources this session had been 24*l.* 1*s.* After meeting all expenses there was a balance on hand of 12*l.* 5*s.* (Applause.)

Mr. LAING, the Secretary, read an interesting report, discoursing pleasantly and buoyantly of the work of the session.

THE PRESIDENT, in proposing that his colleagues on the Council of the Association be awarded a vote of thanks for their services during the past year, said that perhaps the most important scheme they had before them during the session was the proposal to embrace within the Association's field of operations the whole of the West of Scotland. He hoped that that would be an accomplished fact in the course of a week or two, and intimated that a mid-day meeting of Glasgow and West of Scotland chemists was to be held that day fortnight to settle the matter.

### SOCIETY OF CHEMICAL INDUSTRY.

#### SCOTTISH SECTION.

AT the monthly meeting of this Section, held in Glasgow on Tuesday night, a paper on

#### POINTS IN THE MANUFACTURE OF MINERAL-WATERS

was read by Dr. W. ZINKEISEN, of the British and Foreign Mineral Waters Company. The lecturer explained, by means of excellent working models, the forms of apparatus which are at present used in the manufacture of aerated and saline waters, and compared the various systems of plant employed both for the purification and compression of the carbonic acid, and for the impregnation of water or saline solutions with the purified gas. From the fact that the earthy carbonates used in the production of the carbonic acid almost invariably contain proportions of bituminous and



other extraneous matters, which, when treated with acids, yield disagreeable volatile products, it became absolutely essential for the production of high-class beverages to carefully purify the evolved carbonic-acid gas. Dr. Zinkeisen showed that a chemically pure gas could easily be obtained by the use of efficient purifiers. Atmospheric air the author considered to be an impurity which was somewhat overlooked. He explained how it could be removed not only from the carbonic-acid gas itself, but also from the water to be aerated. The presence of atmospheric air in solution in aerated waters caused a great ebullition on uncorking the bottle. This was popularly supposed to be due to "high-pressure charging," but the lecturer was more of the opinion that in the majority of instances this sudden ebullition of gas was due to the imperfect removal of atmospheric air, the presence of which caused an almost instantaneous evolution of carbonic acid, and not that slow dissipation of the dissolved gas so essential in a good aerated water. After pointing out the advantages and disadvantages of the "continuous" and "discontinuous" processes of manufacture, both with regard to cost of working and to the quality of the finished product, he went on to refer to recent convictions in connection with the manufacture of so-called

#### SODA-WATER.

Those convictions, he said, fully showed the alarming want of chemical knowledge displayed by the average aerated-water manufacturer. The author also held that the want of discrimination shown by the consumer is in a great measure liable for those shortcomings on the part of the producer. To the question, "How much soda must be present in a soda-water?" he considered that the Pharmacopoeia strength would be unsuitable, and soda-water was only manufactured so strong when specially requested. The half of the B.P. amount (15 grains to the pint instead of 30 grains) seemed to provide a suitable beverage for ordinary use. So far he was aware of no convictions for too little soda in the water, and he thought, in the absence of an official standard, that the manufacturer was justified in putting in as much as suited the tastes of his customers, just as had all along been the case in the regulation of the saline constituents of potash and lithia waters. Speaking of the manufacture of mineral waters proper, Dr. Zinkeisen made special reference to the various beverages at present before the public under the nondescript name of

#### SELTZER.

The source both of the name and the water was the celebrated spring situated at Niederselters, Nassau, from which "selters-wasser" was originally exported in brown stone bottles. On the Continent the "selters" sold by reliable makers were an exact reproduction of the Nassau spring, while the "seltzers" in this country varied more with regard to their chemical composition than any other mineral water at present in the market. Of the three springs—Niederselters, Okarben (a water occasionally termed "selterwasser"), and Seidlitz—only the first mentioned was of the type of water suitable as a beverage, and it should be taken as a model for imitation of seltzer. On comparing the composition of these springs it would be found that the first two were somewhat similar, whereas the third (seidlitz) was characterised by a very large proportion of magnesium sulphate and sodium sulphate, salts which rendered its use as an ordinary beverage. The Okarben water was rendered obnoxious by its considerable proportion of lime, of which the Niederselters spring contained only a small percentage. The chemical analysis of these natural waters, containing upwards of twenty different saline constituents, showed the impossibility of accurately imitating such spring-waters without a thorough chemical knowledge.

The production of aerated water containing the constituents of the seltzer spring was a much more complicated matter than the manufacture of simple soda-water. This remark applied especially to water containing iron and manganese salts.

The imitation of such waters was only possible where the "discontinuous" system was in use. The difficulties were due to the fact that all the mineral springs contained salts which would not dissolve in the usual way of manufacture. It was customary, on this account, to take advantage of

double decomposition, in order to effect solution of salts not usually soluble. All the double decompositions should be carefully calculated out beforehand, and so arranged that nothing would be present in the artificial mineral water, beyond what was demanded by the analysis of the natural water. The salts are introduced into the mixer in different groups, each of which must be brought into solution before the next one is added. It is customary to fill the bottles with carbonic-acid gas previous to putting mineral waters into them, so as to exclude the possibility of atmospheric air being mixed with the water. The presence of air leads to the precipitation of iron, from the ferrous bicarbonate, as ferric oxide.

The author then referred to the quality of natural mineral waters of this class, stating that, unlike the artificial, they do not keep well, depositing in the bottle. Some natural chalybeate waters which he had examined did not contain a trace of iron, and he understood that in order to avoid that it was the custom to heat chalybeate waters before bottling. Some natural table-waters were also manipulated artificially.

Owing to the difficulty of rapidly cleaning patent-stoppered bottles the author considered that, for high-class mineral waters, egg-shaped glass bottles with sound corks gave the most satisfactory results.

Dr. Zinkeisen was thanked for his contribution.

#### CHEMISTS' ASSISTANTS' ASSOCIATION,

MR. W. H. FRANCIS was the Chairman of the smoking-concert on Thursday evening. It proved to be a very enjoyable affair, Mr. H. H. Robins having got together some splendid talent. Mr. A. H. Barley was the special pianist, and he had the assistance of Messrs. R. Mason and J. C. Umney in that department. The other instrumentalist was Mr. S. W. Murley, who gave two mandolin solos. Mr. Sydney Jamieson, erstwhile a pestle-wielder, now a professional baritone, gave the members his services, and amongst old favourites who sang were Messrs. Reginald Edwards, Percy Umney, Scrivenir, and Pinckney.

#### EDINBURGH PHARMACY ATHLETIC CLUB.

THE first annual meeting of this club was held in the Pharmaceutical Society's house, York Place, on Monday evening, Mr. J. Laidlaw Ewing, Honorary President, in the chair. The report submitted by the Secretary (Mr. J. P. Gibb) stated that the membership of the club is now 95, while the financial statement showed a balance on hand of 177., the income having been 877. and the expenditure 707. The reports were adopted. The office-bearers for the ensuing year were elected, and were as follows:—Hon. President, Mr. Richard Clark, of Raimes, Clark & Co.; President, Mr. W. D. Jamieson; Vice-President, Mr. W. W. Ranson; Secretary, Mr. J. P. Gibb; Treasurer, Mr. A. S. Birnie; Members of Committee, Messrs. James McBain, W. B. Cowie, G. D. Horsburgh, Thomas Welsh, D. J. Murray, W. R. Purdie, and T. D. Burt. The Secretary intimated that the annual sports under the auspices of the club would take place at Powderhall Grounds on May 31.

#### BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.

THE annual general meeting of members of this Association was held on Wednesday at the Rooms in Sillwood Terrace. The President, Mr. A. E. Colman, occupied the chair, and there was a good attendance of members.

#### FORTHCOMING COMPETITIONS.

THE PRESIDENT directed attention to the forthcoming competitions, the first of which consisted of two prizes offered by the local Senior Association. The second competition was for three prizes offered by Messrs. Savage, Gwatkin, and Histed respectively, for the best herbarium. The subject of the former would probably be "Pharmacy," and would be open only to those members who had not passed the Minor. They would find the researches most valuable, and although all of them could not obtain prizes, the study itself would amply compensate them for the trouble and time given to the subjects. (Hear, hear.)



## THE YEAR'S WORK.

Mr. A. P. NOSWORTHY (Hon. Secretary) had found it impossible to get out a report and balance-sheet in time for the meeting. He could, however, state that the number of members and patrons had increased, the total being over fifty; that the session had been a very expensive one, by reason of such expenses as those connected with the *conversazioni*, which ran into 8*l.*, but which, on the other hand, was nearly paid for by the ball; hire of rooms, 7*l.* 10*s.*; refreshments, 3*l.*; printing, 2*l.* 6*s.* 3*d.*; and other minor sums. They would close the year with a few shillings in hand.

A few complimentary speeches followed. The

## OFFICERS FOR THE ENSUING YEAR

were elected as under:—

President, Mr. Yates; Vice-President, Mr. Jerves; Hon. Secretary, Mr. Colman; Assistant Secretary, Mr. A. Riley; Treasurer, Mr. Clark; Council, Messrs. Snow, Crowhurst, Jutton, Price, Kemp, and Harris.

## Bankruptcy Reports.

*Re* JAMES HENRY PASMORE, 116 Tottenham Court Road, Chemist.

THE creditors under this failure met on March 29, at the London Bankruptcy Court, before Mr. E. Leadam Hough, Official Receiver. Having called over the proofs, the Chairman stated that owing to the meeting having been called at the earliest possible moment, and to the fact that the statement of affairs was only recently filed, he had been unable to furnish the creditors with the usual summary of observations upon the failure. The accounts showed assets 707*l.* 10*s.* 9*d.*, made up as follows—viz., cash at bank, 3*l.* 8*s.* 7*d.*; stock-in-trade estimated to produce 180*l.*; trade fixtures, fittings, utensils, &c., 150*l.*; furniture, 100*l.*; life policies valued at 120*l.*; shares in public companies, 35*l.*; good book-debts, 99*l.* 2*s.* 2*d.*; and bad and doubtful debts expected to realise 20*l.* The preferential debts amounted to 123*l.* 8*s.* 2*d.*, and had to be deducted from the assets, thus leaving 584*l.* 2*s.* 7*d.* available to meet the liabilities. The unsecured debts were returned at 608*l.* 10*s.* 10*d.*, so that the account showed only a small deficiency. It appeared that the debtor commenced business in 1869 on his own account, having formerly been in partnership with his father. When he started by himself he had a capital of 150*l.* of his own money, and borrowed 700*l.*, which had since been repaid. The premises at Tottenham Court Road were held on a twenty-one years' lease, granted over eighteen years ago, so there were only two and a half years to run, at a rental of 200*l.* per annum. The rent was payable quarterly, and half a year was in arrear to Lady Day. The lease was deposited with Messrs. Parker & Clark, the debtor's solicitors, but no value was placed upon it, and that firm was willing to hand it over to the Official Receiver. The debtor attached some value to the goodwill of the business, but having regard to the small term remaining, and to an intimation that had been made, that at the end of the time the rent would be increased perhaps 50 per cent., it was difficult to say what the actual value of the goodwill was. There would, no doubt, be some question as to dilapidations, although the place was in a good state of repair. With regard to the failure, the debtor had stated that on September 23 last he took possession of a house and shop at Putney, where a chemist's business had been carried on. He did so at the request of Mr. Crook, a solicitor and creditor, to prevent the lease from becoming valueless; he carried on the business with stock from the Tottenham Court Road shop until a purchaser could be found. He was to receive the net profits of the trading. A few days before Christmas last, the lessors of the premises threatened to distrain for the rent, and the debtor, anticipating a claim of 70*l.* for dilapidations, removed the stock on December 23, and, acting upon the advice of his solicitor, closed the premises, leaving thereon stock to the value of more than was in the shop when he took possession the previous September. An action was then taken against him by Miss

Ruth Stevens, who alleged that the debtor was the mortgagee's manager, and claimed damages for injury to the goodwill and upon account. That action was defended by the debtor, and was eventually referred to an official referee, who gave a verdict for the plaintiff. Execution was subsequently issued upon that judgment, whereupon the debtor petitioned the Court. The damages and costs of that action amounted to 210*l.*, or thereabouts, and the debtor attributed his failure to this occurrence.

Mr. Crook said he appeared for Miss Stevens, the judgment creditor, into whose hands the Putney shop was placed as executrix. He first asked the debtor to find an assistant to take charge of that business, and in response the debtor took personal charge of the shop, but after three months he was found going away at 9 o'clock at night. An account was immediately asked for, but it was not rendered until after the action was commenced, when one was furnished under an order of the official referee, who eventually found that the debtor was indebted to the plaintiff to the extent of over 50*l.* It had been said that the petition was the result of the execution, but as a fact it was presented prior to that event. He was of opinion that the Putney business was a good one, as since the debtor left it had been carried on by a manager at a good profit.

The Debtor: Yes, thanks to the way in which I had worked it up. The business was doing nothing when I entered into possession.

Mr. Crook disputed that statement, and thought it a mild way of expressing himself to say that the debtor's allegation that he had suffered by the Putney business would not bear analysis. (Laughter.) He thought the true reason of the failure was to be found in the debtor's admission that, although, after providing rent, taxes, &c., he had made a profit of 282*l.* during the last year of his trading, his personal and household expenditure had amounted to 340*l.* for the same period. If that was a sample of what had been done in previous years, the present position was easily accounted for.

Mr. Parker, on behalf of the debtor, contended that his client's reasons for the failure were correct. As an old acquaintance of Mr. Crook, the debtor went down to Putney to find an assistant and work up the business. True, he was to have the net profits, but there was not the slightest probability of any at that time, the house being rack-rented and subject to heavy rates and taxes. The debtor was not there long before a distress was put in for the rent, which distress had to be paid out. Matters went on until December 20, when the debtor received a letter threatening that, unless that quarter's rent was paid by the 24th of that month, another distress would be levied. The debtor then considered that a considerable sum was due to him in respect of the business, he having replenished the stock from his Tottenham Court Road shop, and he decided to close the shop before his goods were distrained upon. Acting upon advice, he did so, and went away on December 23. Then came the Christmas week, and on January 2, before there was time to deliver an account of any sort, and whilst the debtor was suffering from a severe accident to his foot, a writ was issued for an account.

Mr. Crook here interposed with an explanation, and the Chairman intimated that the better plan would be to leave the discussion and proceed to the business of the meeting. (Hear, hear.) Had the debtor any offer to submit to the creditors?

The Debtor: No, sir; I leave myself entirely in the hands of the creditors.

Mr. Crook said he had found a client who was willing to buy the estate as it stood at a price sufficient to pay the creditors 15*s.* in the pound.

The Chairman explained that that offer could only be made to a trustee in bankruptcy. They must first deal with the estate in the usual way, as the debtor was not prepared with a proposal, and it would then be open for any person to negotiate with the trustee for the purchase of the business.

Mr. Herring said with a view to expediting matters he would move that the debtor should be adjudged bankrupt, and that Mr. Judd, accountant, 15 Walbrook, should act as trustee, with a committee of inspection.

The resolution was seconded and carried, and Mr. E. K. Bishop (Idris & Co.), Mr. John Hugill (Meggeson & Co.), and Mr. W. Herring (Herrings & Co.) were elected a committee of



inspection to assist the trustee in the administration of the estate.

The following were amongst the proofs that had been tendered, viz. :—

	£	s.	d.
Barron, Harveys & Co. . . . .	12	5	9
Herrings & Co. . . . .	18	13	11
Idris & Co. . . . .	16	9	9
Maw, Son, & Thompson . . . . .	11	13	2
Megeson & Co. . . . .	17	19	3
Parker & Clark . . . . .	156	13	6
Pasmore, C. A. . . . .	48	8	0
Pasmore, W. F. . . . .	21	0	0
Rich, F. S. . . . .	25	0	0
Stevens, Miss Ruth . . . . .	143	0	3
Titmuss, W., & Sons . . . . .	39	4	5

**R. AMOS VINCENT MOLLART, 53 Marsh Lane, Leeds, late Druggist.**

THE examination of this debtor was held at the Leeds Bankruptcy Court on March 28. The debtor stated that his liabilities were 252*l.* 5*s.* 3*d.*; assets, 15*s.*; deficiency, 251*l.* 10*s.* He began business as a druggist at 53 Marsh Lane, with 30*l.* saved. He had previously been in the employ of Messrs. Blackie & Sons, publishers, and of an insurance company. He paid 5*l.* valuation for the business, did fairly well, and would, he alleged, have been able to pay 20*s.* in the pound, but for a creditor pressing him and putting in an execution. The deficiency was explained by living-expenses and sickness. He is now following the profession of a music-teacher.

The Official Receiver: Have you any hope of these debts being paid by your father?

The Debtor: All the debts but be paid in full, excepting one.

The examination was adjourned.

#### DEATHS.

**ATKINSON.**—On March 30, at Bentley, Stephen Atkinson, chemist and druggist, late of Doncaster.

**BAKER.**—On March 19, George Baker, chemist and druggist, Cosham. Aged 41.

**BALL.**—On February 16, Samuel Ball, chemist and druggist, Liverpool. Aged 72.

**CLARKE.**—On March 24, J. G. Clarke, chemist and druggist, Nottingham. Aged 55.

**COLE.**—On March 17, W. T. Cole, pharmaceutical chemist, Weymouth. Aged 72.

**GALE.**—On March 28, Samuel Gale, pharmaceutical chemist, F.I.C., F.C.S., of 17 Park Village West, N.W., and of John Bell & Co., 225 Oxford Street, W. Aged 66. The deceased gentleman was a partner in the firm of John Bell & Co.,



Oxford Street, W., and was for twenty-seven years a member of the Board of Examiners for England and Wales. Mr. Gale served his apprenticeship to the drug trade at Bedford. Thereafter he entered the School of Pharmacy as a student,

and having qualified as a pharmaceutical chemist, was appointed demonstrator to the Professor of Chemistry and Pharmacy (Dr. Redwood). This position he resigned to open a pharmacy in Barnstaple, but he had not been long there when Mr. Jacob Bell invited him to undertake the management of his firm's laboratory in Oxford Street. This offer he accepted, and from 1857 to the time of his death he retained his connection with John Bell & Co., the late Mr. Thomas Hyde Hills having bequeathed to him a partner's share in the business. This, unhappily, he has not lived long to enjoy, the malady which occasioned his death having quickly undermined a constitution at no time robust. Mr. Gale will be remembered by many in the trade as one of the most courteous and sympathetic of examiners. He had the peculiar gift of appearing to candidates as if he had a personal interest in the result of their ordeal; this at once checked nervousness, and Mr. Gale also knew how to get at what candidates knew. He was of equal service to his colleagues on the board; insisting always upon thoroughness rather than undue expansion, and in discussion his happy spirit had a peculiar force in advancing views which under more drastic pushing would have had little support. In his early years at Bell's Mr. Gale was an active member of the Discussion Society which the brighter spirits of Bloomsbury kept up with vigour for a time, and to it he communicated several papers, including one on syrups of metallic phosphates, which was amongst the earliest contributions to this subject in England. By Mr. Gale's death Mr. Walter Hills becomes sole proprietor of the historic pharmacy in Oxford Street.

**MORRIS.**—On March 24, John Morris, chemist and druggist, Coventry. Aged 31.

**PROVOST.**—On March 18, J. P. Provost, pharmaceutical chemist, Huntingdon. Aged 78.

**ROBINSON.**—On March 25, Thomas Robinson, chemist and druggist, Darlington. Aged 83.

**STEWART.**—On March 20, A. Stewart, chemist and druggist, Birkenhead. Aged 71.

**SWINNEY.**—On March 12, W. P. Swinney, chemist and druggist, Morpeth. Aged 23.

**WATTS.**—Mr. E. P. Watts, chemist, of Dorchester, was found dead in bed last Sunday morning, with a glass containing laudanum by his side. He had been dead some hours. Mr. Watts was confined in a lunatic asylum at Salisbury some years ago, but was discharged as cured.

#### Trade Notes.

**MESSRS. SHIRLEY BROTHERS**, of 105 Whitecross Street, have issued an illustrated price-list of their specialities in druggists' sundries. The list extends to over forty pages.

**THE Eau de Cologne**, to which reference was made in our Trade Notes last week, page 446, was that manufactured by Johann Maria Farina, Gegenüber dem *Laurenz Platz*, and for which only Messrs. Oscar Moenich & Co., 8 Coleman Street, E.C., are agents.

**WE** understood when writing the note on the "Midget" shaver that it sold at 2*s.* 6*d.* In this we had been misinformed, for Messrs. R. Hovenden & Sons now write to tell us that it is 7*s.* 6*d.*

**THE** business of Messrs. Barnett & Foster, makers of mineral-water machinery, syphons, &c., will be carried on under the same style as heretofore by Mr. A. P. Blaxter, who has been manager of the mechanical and technical departments for nearly thirty years.

#### Business Changes.

**MR. ANDREWS** has purchased the business for many years carried on by Mr. Hetherington in King Street, Plymouth.

**THE** chemists and druggists' business carried on for many years at Victoria Street, Douglas, by Mr. Bowman has been purchased by Mr. G. L. Whitehouse, chemist and druggist, Ramsey.



WILLIAM RANSOM, F.L.S., F.S.A.,  
PHARMACIST AND ARCHEOLOGIST.

ON one of those warm and sunny mornings of early spring a member of THE CHEMIST AND DRUGGIST staff was sent down to Hitchin to transact some business with Messrs. W. Ransom & Son, pharmaceutical chemists, there, which business had little to do with the present sketch—indeed, it was practically completed with Mr. Francis Ransom when his father, Mr. William Ransom, dropped in to the factory. The conversation turned upon the manufacture of medicinal extracts, and in a drive through the town, and afterwards at Mr. Ransom's residence, the particulars subjoined were elicited.

"While it was no part of my instructions," explains our representative, "to interview Mr. Ransom, neither he nor I was aware that that delicate process was being performed until, at the end of a few most pleasant hours in his company, I told him that he had unconsciously given me mate-



rials for an interesting sketch. Might I publish it? To that Mr. Ransom hesitatingly, but favourably, responded."

#### PHARMACY.

It is known to few pharmacists that Mr. Ransom has one of the finest private archaeological collections in the kingdom, that he has travelled Europe and America—it might be said the world—in search of specimens, and that he has made several notable discoveries in Great Britain. One cannot help contrasting the neatly-arranged specimens in his house, Fairfield, Hitchin, with the similar collections in the British Museum, and sometimes the advantage seems all to be with the Fairfield collection. But first regarding Mr. Ransom the pharmacist. More than half a century ago he made his first acquaintance with pharmacy as an apprentice with Southall, of Birmingham. He went there from Hitchin, where the Ransoms had been settled since the last decade of the seventeenth century. Returning to Hitchin in 1845, Mr. Ransom set up as a retail chemist, although still in his legal infancy. He commenced at once to experiment on the manufacture of green extracts and essential oils, and at the end of four years abandoned the retail for the larger opera-

tions with which his name is honourably connected. A start was made in buildings belonging to the family, and which, though one hundred and fifty years and more old, look fit for many years' work yet. The buildings stood in the middle of fields sacred to lavender, henbane, aconite, belladonna, peppermint, &c., but now lavender alone blooms in the immediate vicinity; the narcotic herbs are grown on the higher ridges of Hitchin. A graphic account of the farm was printed in THE CHEMIST AND DRUGGIST, July 2, 1892. There was a relic of old-time pharmacy in the buildings to start with—viz., a still which Mr. Ransom's grandmother had used for sweet herbs for her village protégés. Oil-distilling, therefore, came naturally to Mr. Ransom, and from that date lavender, chamomile, and rosemary oils have been annually distilled, and, during the past ten years, peppermint oil has also been produced. This part of the factory operations is subsidiary, however, to the general work of extract-making; and that, also, is not confined, as some imagine, to extracts of the medicinal plants cultivated in the neighbourhood. The factory is, indeed, a factory of galenical preparations, and one needs no more than the extensive modern laboratories now under the charge of Mr. Francis Ransom to understand how much Mr. Ransom's scheme has grown since 1850. One of the most peculiar features in the laboratories is comprised in the scammony exhausters and concentrators. In passing, we may say that it is substantially to Mr. Ransom that we owe the introduction of scammony resin into this country. He will not take all the credit, for when, early in the fifties, he went into the matter, a Mr. McAndrew had made an attempt to place the resin on the market, but had not been successful. It was a bold venture for Mr. Ransom. Scammony-root was not then the regular market article which it is now, and he had to instruct agents in Syria and Aleppo to get it collected for him, which meant that he had to pay down 1,000% for the wages of collectors, &c., and trust to the supplies coming forward in a year's time. He was lucky, and soon had a nice resin of scammony upon the market. The process by which the resin is made is practically automatic. High up on the wall of the main laboratory are two large copper percolators, each holding some hundreds of gallons, and each connected with a still and condensing-apparatus, so that the spirituous percolate goes straight into the still, and the vaporised spirit, as it condenses, drops into the percolator. There are three sets of this apparatus in the laboratory. They were designed by Mr. Ransom, and have been in use for many years. The extract is not finished in the stills, but in large, shallow, open pans. Our representative hinted to Mr. Ransom that pil. coloc. co. made with the resin is apt to pit. That was not his experience, and he suggested that it may be due to all the water not being driven out of the resin. It is exceedingly difficult to get it perfectly dry. Scammonin is simply scammony resin decolorised by bone-black. These latter days are evil ones for the scammony-resin maker. "I remember the time, forty years ago," remarked Mr. Ransom, "when we got 30s. per lb. for the resin; now, for exactly the same thing, we get only 7s. I have had the best of the trade, you see."

Our representative noticed an entire absence of vacuum-pans, and commented upon this fact.

"They are a failure," said Mr. Ransom, "so far as pharmacopœial extracts are concerned. They make pretty enough extracts, but such extracts will not keep: the heat of the pans is not great enough to stamp out the microbic life which you always get in the plant-juices. I now speak of green extracts particularly. There was a man who started in, Paternoster Row many years ago to make extracts *in vacuo* but the venture was a failure, and only lasted five years."

"Then you are not a believer in that system of evaporation?"

"Except for such things as malt extract, no. All the pharmacopœial extracts can be better made in open pans than *in vacuo*. They look as well, are just as potent, and keep better. We must, of course, exercise care. See this rhatany extract—the pretty magenta tint is not deteriorated, although the surface is great."

The pan was one about six feet in diameter. Continuing, Mr. Ransom stated that the demand for rhatany extract has increased enormously of recent years. It is mainly used for throat-lozenges.

The extent to which green extracts are made may be



judged from the fact that two hydraulic presses, each capable of giving a pressure equal to 400 tons, are constantly in use during the season. The herbs come in here fresh from the fields, and after examination are quickly converted into little rivers of plant-juices. The subsequent stages of the process need not be described, the British Pharmacopœia being faithfully followed in those details, the sequence of which is so troublesome to Minor students.

After the extracts are finished all the batches of a kind are intimately mixed by a machine resembling a pill-masser, and their alkaloidal value is generally ascertained. Dry extracts are becoming very popular now, *nux vomica*, *ipœcac.*, *bella-donna*, *henbane*, &c., being amongst those that are much in demand. *Elatarium* is here also produced to the extent of 200 oz. per annum—pretty bright green scales it is in, and the stock is kept in the private office for safety.

Without attempting, however, to go through all the produce of the laboratories, the herb-drying rooms, and grinding-rooms, or even mentioning the work which is done by Mr. Francis Ransom in his experimental laboratory, it may briefly be stated that here we have a modern industry, of which there is not an exact counterpart elsewhere in the kingdom. Perhaps the most notable point of all is that there is scarcely a chemist in the country who has not handled Ransom's extracts. Yet how few have known it, or know of the evidence of the busy factory at Hitchin! The reason, of course, is that the firm have dealings with wholesalers only, and all their business has been of the most unostentatious character. They have no travellers. All that has ever been done in that way is that once a year Mr. Ransom, senr., has given his provincial customers a friendly call, but he says he has never been treated as a traveller. Now Mr. Ransom, junr., takes a journey in the spring in an equally quiet way, and latterly the firm have had an advertisement in *THE CHEMIST AND DRUGGIST*. Perhaps we are entitled to say that *that* is everything.

#### ARCHÆOLOGY.

After thirty years' close attention to work, the subject of our sketch turned to archæology with that quiet enthusiasm which has characterised his work in pharmacy. The district in which he lives is full of historic association, and one can scarcely put pick or shovel into some parts without turning up a relic of ancient Briton, Roman, or Saxon. One such place attracted Mr. Ransom's attention early in 1879. It was on Pegsdown Common, four miles from Hitchin. Here he dug and soon found from the cinerary urns of Samian ware that he had hit upon a Roman burying-place. Three years later, near Great Wymondley, he made a more important discovery of a similar character—a burying-place with forty-three urns. "Accompanying each urn" (he remarks in a published paper on the subject) "was a Samian dish and a wine-bottle, some of these being full of liquid, but possessing none of the flavour of the famous Falernian wine. By the side of one of the urns there was a baby's feeding-bottle, thus touchingly indicating that the ashes of a mother and infant rested in the larger vessel, and illustrating the care that was then taken in providing even for the anticipated need of the spirit of the little babe whilst being ferried over the river Styx under Charon's charge." The find was of exceeding value. Glass vessels, nails, spikes, keys, querns, knife-hones, lancets, astragali, coins dating from Vespasian (A.D. 69) to Julianus (A.D. 360). So plentiful was the evidence that the cemetery was in the neighbourhood of a spot once inhabited by the Romans that Mr. Ransom pursued his researches further, and was rewarded in 1884 by the discovery of the remains of a Roman villa 2½ feet below the surface of the ground! This, with its tiled floors and what fragments of wall remained, was laid bare by Mr. Ransom, and the whole completely investigated. This is his description of the condition he found the floor in:—

One remarkable feature was the presence of charcoal and ashes in the centre of most of the rooms, even that in which was the tessellated pavement being in this way blackened and injured. Around were scattered bones of oxen, sheep, red deer, swine, goats, and birds, with quantities of oyster-shells; also a few bones of the fox, but none of the hare or rabbit. Probably the antipathy to lures, which Cæsar mentions in his description of Britain, held good then in the same way as it exists still among some of our population in certain parts of the country. From the untidy state of the floor, we may be justified in concluding that after the original occupants had been driven from their abode by another set of invaders, some semi-

barbarous tribe took possession and dwelt there, that they kindled fires on the elaborately-designed tessellated floors in the centre of the rooms, to warm themselves and cook their food, and, gnawing the flesh off the bones, threw these aside, after extracting the marrow, as the marrow-bones were cracked longitudinally.

From his investigations Mr. Ransom believes that the whole of the higher ground in Hitchin was at one time thickly populated by the Ancient Britons: then by the Romans, whose coins are universally distributed throughout the district; and, finally, by the Saxons. Indeed, in one burying-place he has found the remains of Saxon, Roman, and Briton—a touching instance of the levelling power of Death. When we add to this that Mr. Ransom has extended his antiquarian researches to all parts of the world in which he has travelled, some idea may be obtained of the richness of his collection; and we may mention, in passing, that he always sends home living specimens of the flora of the districts which he is visiting, so that the rockery in his garden is planted with the specimens collected by his own hands in North America, Europe, and other parts of the globe. His *Wellingtonias* he sent home from Yellowstone Park, and there are many things in his extensive hot-houses which recall his travels.

It is impossible in a journal of pharmacy to speak adequately of the archæological collection: we simply give the impressions of one pharmacist who has had the pleasure of inspecting the fruits of another's hobby. That hobby is at once evident on stepping into the hall of Fairfield. The sides of this are two magnificent pieces of carved wainscot from an old house in Devonshire, and dating from James I.'s time. The wainscot reaches to within 2 feet of the ceiling, and is surmounted by specimens of ancient and modern vases. Mr. Ransom's collection occupies three or four rooms in Fairfield, but one stumbles on a cabinet of flint arrow-heads and similar things in odd corners as a testimony to the ever-increasing store. In one room there is a beautiful display of ancient glass—beautiful in shape and colour, the iridescence of ages being inimitable by modern art. "Here is a bottle of Roman tears," said Mr. Ransom to our enthusiast. "This is another." The highest tribute to the departed was handled tenderly as if it were a monument to a dead friend. The liquid is hermetically sealed in the bottles, and, shifting for a moment his enthusiasm from archæology to chemistry, our representative asked Mr. Ransom if he was not tempted to analyse the tears. A smile betokened the negative. Of flint arrow-heads there is a bewildering collection, from the ancient Briton's to the very modern South Sea islander's, all neatly arranged, each numbered, and a story attached to every one. There is little to choose between them. Our forefather of the year 1 could make as good an arrow-head as our naked dusky brother who at this moment steers his course through life by the Southern Cross. Stone celts and spear-heads tell the same tale, and this, it seems to the visitor, is the object which Mr. Ransom keeps in view—the contrast between the ancient and the modern.

We can count the specimens of ware by hundreds, all of them beautiful, typical and valuable. The Samian ware already mentioned is not the only kind, but it must have been exceedingly valuable in its day, for many of the pieces which the collector has found are riveted by some Roman artisan, thus testifying to the intrinsic value. This ware is brick-red in colour, and the glaze is of astonishing hardness, so that it is as bright as if it had come out of the kiln yesterday. That reminds us of one curious specimen—a plate on the bottom of which are five spots unglazed—the spots where the plate rested on the potter's fingers and thumb when it was being placed in the kiln after the glaze was applied. The feeding-bottles which have been mentioned vary in shape. The two which are figured on page 481 (2 and 3) are fair examples. The capacity is about 5 oz., and the nipples are part and parcel of the ware. Figure 1 is a tiny ointment-box which was picked out of a drawer full of Roman surgical instruments—lancets, probes, excavators, &c., most of them made of bronze, of which a few are heavily gold plated. The wealth of these in Mr. Ransom's possession, together with the circumstance that all have been found in Britain, is another indication of the greatness of the Roman power in our country. Several drawerfuls of *styli* call up to the inquirer's mind the abnormal conditions of Roman life. The Roman stylus was made of bronze, and the upper end was flattened out so that an erasure could readily be made



on the waxed surface. Asked why so many specimens had survived the centuries, Mr. Ransom explained how Roman nobles indited their writings—how, in fact, books were published. Given an author, he would be a rich man with a household of educated slaves. To a roomful of these he would dictate his thoughts; they transferred them to the waxed slate with the stylus, and each slateful would be sent out to a roomful of transcribers—and so on to the end of the chapter.

There are many other curious things in Mr. Ransom's collection. In a corner of his study there is a mural tablet (Mithridas) which once graced a Roman temple on the banks of the Walbrook of London. The inscription on the tablet shows that it was erected by a Roman general who while in Aurantia, a province of Gaul, made a vow that if he reached Britain he would erect a temple to his god. He had the tablet carved in Aurantia, and its discovery with other pieces of sculpture during excavations in London Wall



sufficiently testifies that he performed his vow. Mr. Ransom saved the tablet by going down Whitechapel way, where a labourer had taken it, and he has the satisfaction of knowing that only two other tablets of the same kind have been found in England, and that his is the best.

These are but a few examples of the many treasures which one may see in Fairfield. Our representative had not time to look over the collection of coins, but Mr. Ransom put in his hand a trim morocco case, on opening which he found twelve gold pieces of a sovereign's weight—the coins of as many Cæsars, and all as bright and as bold in relief as if they came from the mint yesterday. Much could be said of Mr. Ransom's taste as picture-collector, for his examples of Birkett Foster, Sam Bough, Kate Greenaway, Clara Montalba, Denovan Adam, and others still to be known to fame are in keeping with the charming views which one gets from Fairfield. Everything here is a good index to the character of the owner—his warm heart and liberal spirit, shown as much in his capacity as a landowner as in his work as a Hitchin townsman, where he serves on the County Council, the Local Board (of which he is chairman), and School Board. Altogether a man of whom pharmacy may be proud.

## Personalities.

MR. T. W. HARRIS, chemist, of Church Road, Hove, has been appointed an overseer for the parish.

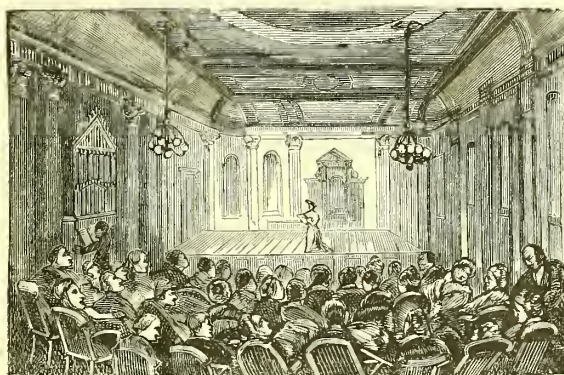
MR. J. BROOKS, chemist, 1 Broadway, East Ham, has been elected a member of the local board for the Central Ward. He topped the poll.

MR. WILLIAM STONES, pharmaceutical chemist, and Mr. William Vickers and Mr. Thomas Renshaw, manufacturing chemists, are amongst those who have been appointed overseers for the city of Manchester.

AMONG the new magistrates who qualified for the county of Denbigh at the Quarter Sessions yesterday (Friday) was Mr. Arthur E. Evans, Bronwyf, Wrexham. Mr. Evans is the youngest son of Mr. Edward Evans, J.P., senior member of the firm of Evans, Son & Co., Liverpool, and resides with his father.

THE musical critic of THE CHEMIST AND DRUGGIST

was invited recently to attend a concert at the Hospital for Incurables, Putney. The concert was organised by Mr. John Lorimer, the wholesale druggist, and he and some members of his family were among the performers. It was in all respects a success, and appeared to give great pleasure to the



audience, which consisted almost exclusively of the inmates of the hospital. Nearly 200 of these occupied the spacious halls of the noble institution. They were brought in in wheeled invalid-carriages which were placed in lines and gave the effect of the stalls at the opera, only that the colours were a little more subdued and the spaces among the auditory were wider. It is to be hoped that the hall is often utilised as pleasantly.

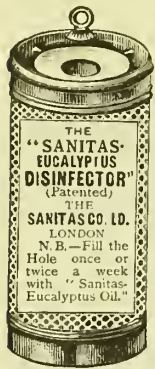
At the invitation of Mr. Hertz, of the firm of Hertz & Collingwood, some twenty guests met last Thursday at the

Café Royal to listen, after a choice dinner, to Mr. Collingwood's account of his experiences in getting a concession for a pavilion at the Chicago Exhibition, wherein to exhibit the waters—the sparkling Rosbach, the aperient Franz Josef, and the arsenical Levico—which the firm are introducing into America as well as in England. In responding to the toast



of his health, Mr. Collingwood gave an interesting account of his recent trip. The show is going to be—well, at least twice as big as the last Paris Exhibition, he thought, speaking off-hand. All the buildings are now ready, and Britain—at first somewhat laggard—will cut a very creditable figure after all, excepting, perhaps, in the electrical department. The Chicago people are excessively proud of their Exhibition, and that sentiment, perhaps, is at the bottom of many accusations of greed and narrow-mindedness that are made against the managers, for these gentlemen are determined to have no rubbish and quackery at their show, though anyone who comes with a thing of genuine merit is admitted cheerfully. But, remarkable though the Exposition be, Chicago itself is a greater wonder still. Sixty years ago the spot was a prairie, twenty-five years ago a smoking ruin, and now its boulevards measure forty miles in length. Mr. S. M. Burroughs, whose firm are interested in the two medicinal waters, and who had assisted Mr. Collingwood at Chicago, also gave some reminiscences of the visit. Dr. Donaldson, who said he was raised in Baltimore, “a little place which the Chicago people have to look on the map for,” supplied the gentle counteractive satire against the great Exhibition city, which made the rest of the company feel that, after all, Chicago was not the whole earth with all its greatness. And finally Mr. Hertz gave a description (suggesting, in its graphically, personal acquaintance with the spot) of the underground laboratory where Nature compounds the famous waters we have named. That Messrs. Hertz & Collingwood believe in these waters with a faith that knoweth no obstacle, our representative who assisted at the dinner considers beyond doubt. Nor will they fail to do what in them lies to bring the world at large round to the same view.





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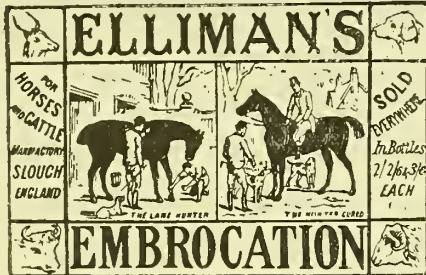
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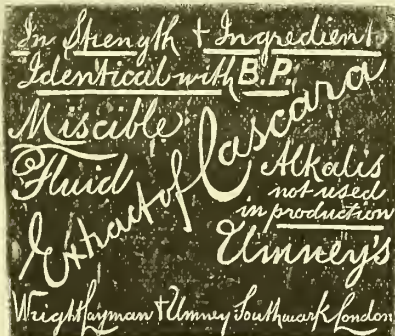
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## Editorial Comments.

FARR AND WRIGHT ON TINCTURES.

WITH the paper on tincture of lobelia which we printed last week, Messrs. Farr and Wright have brought to a conclusion the important investigation upon which they have been



engaged, independently and jointly, for fully five years. As it is highly probable that the results which they have arrived at will be reflected in the next edition of the British Pharmacopœia, it is well that pharmacists should examine the investigation, and, if they think it necessary, check any of the results by further experiment. The research has been one of peculiar interest. The investigators, Mr. E. H. Farr, of Tickfield, and Mr. Robert Wright, of Buxton, are known to each other only by reputation, and have never met in the flesh. They were moved to work together in consequence of their independent papers read at the Leeds Conference not being in complete accord. After this they entered into correspondence, agreed upon the ground to be covered in their joint research, and the lines upon which the investigation should proceed. Each was to do half the work, this being ensured by an arrangement under which the country was divided into two parts, Mr. Farr drawing his samples from the south, and Mr. Wright drawing his from the north. In experiments on tentative processes for making the tinctures and assaying them, each has done a series by methods decided upon, and in case of difference one has worked upon a third series. In all cases the average alkaloid strength of the drugs employed has been determined from twelve samples. The expenses of the investigation have been noted and defrayed by the two investigators equally. It is a gratifying circumstance, and adds considerably to the value of the results, to know that on two occasions only have the investigators differed, and the check series of experiments resulted in one case in the establishment of an important fact, while in the other the error arose through the acceptance of a published assay process as correct, when it was not so.

Strictly speaking, the object of the investigation was to determine "the solvent action of alcohol of different degrees of strength on some of the drugs used in making pharmacopœial tinctures." The subject is not a new one. Many years ago it was thoroughly gone into by American pharmacists whose object was to determine the best menstrua for preparing liquid extracts. But the American results are practically useless in application to British tinctures, and it was generally agreed by those interested in the matter that work on the lines sketched out by Messrs. Farr and Wright was desirable. They have experimented on twelve drugs containing definite active principles; the average percentage of active principle in each drug has been determined, each has been converted into tincture by spirituous menstrua, varying from 40-per-cent. alcohol (by volume) to S.V.R. strength, continuous percolation, macero-percolation and simple maceration being employed; the percentages of extractive matter and active principle in each of the tinctures so prepared have been determined; assay processes for the tinctures have been devised, and in many cases the physical characteristics and the keeping properties of the respective tinctures have been recorded. It will thus be seen that a stupendous volume of labour has been involved in the research, and were any Fellowship available for such honest and profitable pharmaceutical work it could not be bestowed upon worthier recipients than these gentlemen. We may glance over the results alphabetically rather than in the order of publication.

Tincture of Aconite, which is officially made with rectified spirit by macero-percolation, is better when made with 70-per-cent. spirit by continuous percolation. In the latter case the average percentage of extractive matter in the tincture was found to be 3.12 and alkaloid 0.062, in the former 2.3 and 0.5. The 70-per-cent. tincture is in all respects the best, and is recommended in preference to the B.P. one. Sixty-three tinctures were made in this instance.

Tincture of Belladonna is made officially by macero-percolation of the powdered leaves with proof spirit. The experiments with sixty-eight tinctures, involving five menstrua and four processes, show that the official process gives as good a tincture as possible, containing on the average 1.24 per cent. of extractive matter, and 0.24 per cent. of alkaloids. The results also show that maceration is almost as good as percolation.

The report on tincture of Cinchona, which was presented to the last meeting of the British Pharmaceutical Conference, demonstrated the value of the 70-per-cent. alcohol menstruum, and the superiority of percolation over maceration, decidedly marked in this case. This tincture contained 6.14 per cent. of extractive and 1 per cent. of alkaloids, as compared with the 5.76 and 0.87 in the proof-spirit or B.P. tincture. Seventy-three samples of tincture were made and operated on.

Except a recommendation to make tincture of Colchicum seeds by continuous percolation, no alteration is proposed on the official formula, which yields a tincture containing on the average 1.8 per cent. of extractive, and 0.08 per cent. of active principle. The strength of the tinctures was, however, found to be extremely variable owing to the drug being variable.

Tincture of Conium was one of the tinctures upon which the independent results laid before the Conference widely differed. The renewed investigation has shown that both workers may have been correct, for about one-half of the commercial conium-fruit contains less than half the amount of extractive that the other half does, and there is a corresponding variation in alkaloidal value. It was found that a 70-per-cent. menstruum yielded a tincture containing 0.86 per cent. of alkaloid, as compared with 0.76 per cent. in the B.P. tincture; extractive differed but slightly. Continuous percolation gave most uniform results.

Tincture of Gelsemium is the article which found the investigators much at variance. In making the tinctures with 80, 70, 60, 50, and 40 per cent. spirit, one worked by the B.P. macero-percolation process, and the other by continuous percolation. In nearly every instance (*i.e.*, twenty-four in each case) the percentages were about double, and sometimes more, with continuous percolation (see THE CHEMIST AND DRUGGIST, xli. 265). As a result the B.P. process is emphatically condemned, and continuous percolation with 70-per-cent. spirit recommended. It yields a tincture containing 2.09 per cent. of extractive, and 0.055 per cent. of alkaloids. The figures for the B.P. tincture are 1.6 and 0.028.

Again, in the case of tincture of Green Hellebore the 70-per-cent. spirit was found to be the most efficient solvent, the tincture obtained containing 2.57 per cent. of extractive and 0.138 per cent. of alkaloids, the rectified-spirit tincture containing only 0.132 per cent. of alkaloids. Continuous percolation also gave substantially better exhaustion than any other process.

In their communication to the 1891 Conference the authors dealt with tincture of Henbane, showing that 40-per-cent. spirit produced a tincture practically as good as those made with stronger alcoholic menstrua, and that the 40-per-cent. tincture mixed more elegantly with water. There is little to choose between the processes of preparation. The tincture contains 3.6 per cent. of extractive and 0.01 per cent. of alkaloids.

The official formula, for the preparation of tincture of Jaborandi was found to be unimpeachable on all points except method, which yielded a tincture containing 5.14 per cent. of extractive and 0.124 per cent. of alkaloid, con-



tinuous percolation yielding 5.88 and 0.136: spirits stronger than 50 per cent. are not so efficient menstrua.

Tincture of Lobelia, as reported last week, should be made with 50-per-cent. spirit, instead of proof (57-per-cent.), because the one is as good as the other and cheaper. Otherwise the formula might stand as it is. The tincture contains 2.35 per cent. of extractive and 0.038 per cent. of lobeline.

The two papers in regard to tincture of Opium (*THE CHEMIST AND DRUGGIST*, xlii. 77 and 312) reveal the fact that the investigation of this tincture proved to be by far the most important of the series. The authors have demonstrated that the Pharmacopœia is wrong in recommending dry opium, for then the drug cannot by any method be exhausted. The best way to make the tincture appears to be a preliminary trituration of the moist drug with cold water, then add spirit to make the menstruum of proof strength, and macerate for several days. The present pharmacopœial standard—0.75 per cent. of morphine—may be retained; but with 10-per-cent., dry opium, and the B.P. method it is impossible to get a tincture of that strength.

Tincture of Stramonium completes the series of alkaloidal tinctures, and no material divergence from the B.P. formula is suggested.

While we commend the work as a whole, and believe that the results will be of substantial benefit to medicine, we do not say that in some points the investigation is not open to criticism. We could have wished, for example, that the authors had stated the average specific gravity of their products, this factor always being useful, and the calculation from the specific gravity of the menstruum and the percentage of extractive is fallacious. The results might be taken, generally, as conclusive evidence of the inferiority of maceration. This is true as regards the British method of maceration, but if the continental method had been followed also, we expect that the results would have been more in accordance with those from percolation. Continental pharmacists macerate and press, but never think of diluting the resulting tincture to a required volume as we do, and that is where they are ahead of us. These are small matters, however, in face of the magnificent work involved in the research. The authors have made and analysed almost a thousand tinctures, and hundreds of experiments have been made before the different assay-processes were adopted. They have provided important data in regard to menstrua, and especially in regard to variation in the quality of a dozen most important drugs. These results call for due recognition on the part of the pharmacopœial authorities. There is no honour that pharmacy can bestow on them, except that of sincere appreciation; but the authors have the satisfaction of knowing that they have done one of the best private pharmaceutical researches of the present time.

### DISPENSED MEDICINES.

It would seem from our correspondence, and from other evidence, that the arguments in the case of the Pharmaceutical Society v. Piper, in reference to the conditions of labelling dispensed medicines, revealed to a great many chemists the existence of those conditions. We do not doubt that to most pharmacists the legal position is quite familiar, but as there still remains the possibility of more than one reading of the section, it may not be out of place to show in a short narrative what is definitely laid down, and what is or may be regarded as doubtful in regard to dispensed medicines containing poison.

When the Pharmaceutical Council of a generation ago were drafting the Bill requiring that poisons should be labelled

with the name of the poison, and the word "poison," it was readily seen that to apply such provisions to medicines as prescribed by physicians, or supplied by medical practitioners to their patients, would occasion great difficulty. The exemption consequently inserted was cleverly worded so as to cover not only such cases simply, but also all medicines "dispensed" by chemists. It runs thus:—

Nor shall any of the provisions of this section (17) apply to any medicine supplied by a legally qualified apothecary to his patient, nor apply to any article when forming part of the ingredients of any medicine dispensed by a person registered under this Act; provided such medicine be labelled in the manner aforesaid with the name and address of the seller, and the ingredients thereof be entered, with the name of the person to whom it is sold or delivered, in a book to be kept by the seller for that purpose.

This section grants exactly the same exemption to medicines "dispensed" by chemists as to medicines supplied to their patients by apothecaries or, as expressed in the amending Act of 1869, by medical practitioners. It did not, however, pass through the House of Commons unchallenged. Mr. Robert Lowe saw the vagueness of the expression, and proposed to add after the words "dispensed by a person registered under this Act," the explanation—

under the written prescription of a legally qualified medical practitioner.

It was explained that this would throw upon the dispenser the difficult duty of ascertaining who was the writer of every prescription sent in to him and whether he was duly qualified. Mr. Lowe preferred that chemists should take that responsibility rather than that they should be permitted "to supply the most deadly poisons without restriction," so he divided the Committee of the House of Commons on the point. Common sense and chemists' rights prevailed by 14 votes to 2.

The first action under the Pharmacy Act which went to the High Court raised this particular point. A young man staying at Worthing, who wanted to poison himself, wrote the following prescription:—

B		
Acid. hydrocyanic. (Scheele's) .. ..	5ij.	
Aque rose .. ..	3ij.	
M. Ft. lotio; ter die applicand. Mrs. Newton.		R. M. L.

The young man had been a chemist's assistant, and was, therefore, able to write the prescription in orthodox fashion. The unsuspecting chemist "dispensed" it in the ordinary way, copying it in his book, labelling it as required, and adding a label—"Caution. For external use." The police, however, after the suicide of the purchaser, prosecuted the chemist before the Worthing Magistrates, and obtained a conviction. The Pharmaceutical Society took the case to the Court of Queen's Bench, where it was argued before Justices Lush and Hannen. For the police it was urged that this was simply a sale of diluted prussic acid, and that it did not come within the exemption relied upon. This contention raised the question—What is dispensing? The Court held that under all the circumstances the medicine had been "dispensed." "The proviso," said Justice Lush, "seems to put upon the same footing in this respect a duly qualified medical man supplying this thing to his patient, and a registered chemist and druggist dispensing such a thing." "The principle involved," he also said, was "the making-up something that is prescribed, or making it with directions how it is to be used."

That is, as far as we know, the only time dispensing has been judicially defined under the Pharmacy Act. It can hardly be said to be a construction of the phrase complete and satisfactory for all occasions. Mr. Barnard Proctor has lately tried his hand at a definition. According to him,



"Dispensing is supplying to a patient a remedy calculated to suit his particular case." If anything, this is, we think, a little worse than Justice Lush's. The dispenser has nothing to do with "the particular case." A prescription for a cough-mixture may be brought to him when an application for corns is really required, and if he supply it he dispenses it all the same. Nor is it any affair of his whether he supply it to the patient or not. We are inclined to agree with Mr. Proctor that it should be a "remedy," and his inclusion of this word seems to be the one respect in which he scores over Justice Lush.

Etymologically, dispense means "to weigh out"; lexically, it means to distribute; technically, it means to compound drugs into medicines extemporaneously. The "Art of Dispensing" says dispensing is the application of chemistry to pharmacy. None of these interpretations help us in the least degree to a principle on which dispensing poisons can be distinguished from selling them. Obviously there must be some distinction, or a chemist might sell every poison without a label by simply entering each sale in a book. In the dictionary sense he might say he had dispensed it. We think it is clear from the context of the proviso that compounding is essential to dispensing within the meaning of the Pharmacy Act. The "ingredients" have to be recorded. Mr. Proctor suggests the case of a prescription for, say, liq. arsenicalis ʒij. with or without directions. He thinks that in supplying that on a *bonâ-fide* prescription the first time, the chemist is protected by the dispensing provision; but if the customer comes back some time after and asks for "some more of those arsenical drops," he would regard this as a sale. His proceeding would be, we expect, in accordance with general practice, but we fail to see its logical accuracy. We are inclined to think that, strictly, the law requires the full labelling conditions on both occasions, and if chemists or doctors disregard them in supplying poisons, they take a certain risk in doing so. As a conclusion to these remarks we submit as our definition of dispensing, "The extemporaneous compounding of drugs into a medicinal form from a specific formula followed by the supply of the preparation." The specific formula, referred to is the one which has to be entered into the book kept for the purpose.

#### NATIONALITIES IN RUSSIAN PHARMACY.

We have several times lately given particulars of the measures taken by the Russian authorities to reduce the number of Jews among professional men in the empire and to "Russianise" the Universities—in other words, purge them of the German element, which has attained a kind of hereditary supremacy in some of the most prominent seats of learning. It is in obedience to this tendency that the German names of some of the cities on the Baltic have recently been Russified, and that the use of the Russian language has been made compulsory in schools. Whatever may be thought in this country of Russia's methods of dealing with the alien races that have for generations fattened upon her soil, it is difficult to see anything unreasonable in a demand that German professors at a Russian University, paid by the Russian Government, shall conduct their classes in the language of the country in which they earn their living, and abstain from active propaganda against its institutions. And in judging the behaviour of the Russian people towards the Jews, account should also be taken of the manner in which the native race has been crowded out of the liberal professions by the persevering Israelite and the plodding German. Take pharmacy, for instance, concerning

which very complete statistics, based upon a census just taken, are published this week in the *Pharmaceutische Zeitschrift für Russland*. There were in the whole of the country, at the close of 1892, 6,478 pharmacists, 2,042 of whom were Poles, 1,455 Jews, 1,308 Germans, and only 1,058 Russians, the remainder being Lithuanians, Finns, Armenians, and members of the various other minor nationalities included in the Empire. It is interesting to note that one solitary representative of the British people figures upon the list of nationalities. His company is decidedly mixed, however, for he is lumped together with a Dalmatian, a Moldavian, a Tartar, and one or two specimens of other races towards whom the Britisher probably feels but slightly sympathetic. The true Russians, it will be seen, form but 16 per cent. of the total pharmaceutical population of the Empire, and when the relative number of the nationalities of the country is taken into account, their strength becomes altogether disproportionate. There are only 15 pharmacists to every million citizens of Russian race in the country, while the Lithuanians furnish 133, the Poles 408, the Jews 485, and the Germans 872 pharmacists for every million of their race. In pharmacies connected with hospitals and other public institutions the proportion of Russians employed is considerably higher than in the ordinary civilian establishments, and in the military and naval pharmacies no Jews are employed at all, though the Pole and the German flourish freely even in those departments of public life. The proportional percentages of proprietors of pharmacies is somewhat more favourable to the Russians and unfavourable to the Germans than that of pharmacists, for while the Germans number 20.2 per cent. of the total pharmacists, and only 14.3 per cent. of the apothecaries in business, the Russians are respectively as 16.3 and 32.6 per cent. On the other hand, the proportion of pharmacists in wholesale houses, factories, and mineral-water works is very unfavourable to the Russians, four out of every five chemists so employed belonging to the German, Polish, or Jewish race. As regards the religious sects of the apothecaries, 35.8 per cent. are returned as Roman Catholics. These include the whole of the Poles and probably a fair proportion of the Germans, 23.7 per cent. are Lutherans, 22.6 per cent. Israelites, and 17 per cent. are what the official statist calls "True Believers"—i.e., Orthodox Russians. The Russian Dissenters, or "Old Believers," about whose persecution so much has been heard in the European press lately, seem to have a bad time of it in Muscovite pharmacy. There is but one single specimen returned as professing their creed, while there are two "Anglicans" and as many Mohammedans. The Jewish pharmacists are found mostly in the southern or western parts of the country, while the Germans predominate in the Baltic Provinces and in the capital. In these parts (probably the most lucrative) they form three-fourths of the whole. The total number of nationalities mentioned in these kaleidoscopic returns is twenty-eight. To obtain something like a true appreciation of the subordinate position of the native Russian in one of the typical liberal professions of his country we have only to imagine the state of things that would prevail in England if out of every twenty chemists here there were but three Britishers against six Americans, three Germans, and eight Continentals of various other descriptions.

#### A COUNCIL CONTEST.

The members and associates in business of the Pharmaceutical Society are to have the opportunity this year of exercising their rights as voters. In addition to the fourteen retiring Councillors, who seek re-election, two gentlemen have agreed to go to the poll. These are Mr. Thomas



Bateson, of Kendal, and Mr. J. Rymer Young, of Warrington. Good luck to them! They deserve votes for giving us a contested election, if for nothing else. Perhaps they have a policy of their own; if so, they should give it full publicity.

#### SILENCE.

A Council contest was never more needed than now. The policy of silence which dominates the Council meetings from month to month does the Society no good, but much harm, by withdrawing the interest of the members from all but routine matters. The policy is intentional, the members having agreed—whether by arrangement or not is immaterial—to let Mr. Carteighe have his way; then their innings will come. As Mr. Carteighe's way is to conduct all contentious and important business before the Council meets and after, Nature begins to rebel at the enforced silence; and on Wednesday the members discussed a paltry phrase in a declaration-form with a degree of solemnity which would have been appropriate to a matter of Imperial importance—such, for instance, as putting carbolic acid on the poisons schedule.

#### THE RESEARCH REPORT.

We are somewhat surprised to find no mention in the Research report presented to the Pharmaceutical Council on Wednesday of the Research grant of 50% which the Chemical Society awarded to Professor Dunstan on January 30. The report states that the year ended with a small balance on the wrong side, the Society's subsidy of 300% and the Royal Society's grant of 150% being insufficient to meet the expenses of chemicals, &c., and salaries. The Treasurer of the Society appeared to know little about the Laboratory finances: he had heard that the Chemical Society were to give a grant. According to the Chemical Society's financial statement, the grant has been given. The question now is, Where has it gone to?

#### AN EXAMINATION SUCCESS.

The gratifying report which Dr. Thomas Stevenson has sent to the Privy Council regarding the first year's work under the new regulations was a fitting supplement to the finance report read to the Pharmaceutical Council on Wednesday. A quarterly revenue of 2,500% from examination-fees is a proof of the foresight in raising the minor fee from 3% 3s. to 5% 5s., and when we have the Government representative telling us that the examinations are better conducted now than before the success of the new regulations becomes overwhelming. What we cannot understand is the increase of the failures. We had supposed that the object of extending the scope of the Minor examination slightly, and the time greatly, was to give examiners and candidates a better chance. So far the examiners have had their innings, and it is time that the candidates should become familiar with what is expected of them. The percentage of failures in chemistry is appalling, and entirely out of proportion with all the other subjects. We put it to the examiners: is it not possible that this is not altogether due to the candidates? May the examiners not make too much of chemistry, or is it that too little is made of those other subjects with single-figure percentages of failures? It would be a good thing if the Board of Examiners would let themselves be heard once annually—say, in reports to the Council. In such reports they could materially supplement the remarks of the Government visitors, and could speak directly to students and teachers regarding the weak spots in the education and training of chemists and druggists. The weakest spot of all is, no doubt, that students do not learn chemistry systematically during a period of years. What is wanted is to get every young man to take a little chemistry and physical science every year at evening science-classes, and to regard this as the groundwork of his education in pharmaceutical chemistry. As theoretical chemistry is taught in our schools of pharmacy, it is impossible for

students to get more than a tenth of the subject without rapid cramming. Even in Bloomsbury Square half the session is gone before the students have got through the gaseous elements. The consequence is that the education and examination systems do not fit together at all.

#### A PHARMACEUTICAL CRISIS.

Next Thursday is to be a critical point of time for British pharmacy. The Glasgow Pharmaceutical Association invites the West of Scotland generally "to share (with it) the burden and participate in the honour of assisting pharmacy to its proper level, in safeguarding its interests, and asserting its privileges against the mercenary encroachments characterising the spirit of the age." If rotundity of phrase will save pharmacy from the mercenaries who threaten it, Glasgow evidently needs no outside support. But will not some clear-headed heckler at Thursday's meeting ask the eloquent scribe who penned the circular from which we have quoted to define exactly what steps it is proposed to take?

#### CANADIAN DRUGGISTS SEEK A MONOPOLY.

There is a Bill in the Ontario Legislature entitled "An Act to further amend the Pharmacy Act." It schedules a large number of drugs in addition to the poisons already provided for, which are only to be sold by qualified druggists, and also declares that no other person shall sell or keep open shop for retailing, dispensing, or compounding poisons, or medicines of any kind. It also adds the description "vendor of medicines" to those which may not be assumed by unqualified persons. The patent-medicine trade regard this attack as one directed expressly against themselves. They say it is intended to scoop all the trade in their goods now carried on by fully 5,000 dealers into the hands of the 750 registered chemists in the Province, and they vow they will fight the druggists to the last ditch rather than yield their claims. The Toronto press goes against the druggists, and it seems likely they will have to modify their demands.

#### ICH DIENE.

Cute persons may have noted that A. & F. Pears (Limited) have lately made a change in the arrangement of the Prince of Wales's feathers which they have the freedom of using as soap-makers to the Prince's household. Instead of the plume of three feathers united by a scroll bearing the motto "Ich Dien," the three feathers are arranged separately on a shield, and each has a scroll with the motto "Ich Diene"—this being the correct arrangement and the proper German according to the Prince himself. But the feathers should be white upon a black shield, say the experts. Loyal people may safely follow in the wake of Pears.

#### LACTIC BACILLI IN MALT EXTRACT.

We mentioned, in reply to a correspondent recently, that malt extracts contain abundance of lactic bacilli. Our authority for this statement is Sir William Roberts, M.D., who, in a recently published paper, suggests the use of the lactic fermentation as a counter-septic agent in cases of ammoniacal decomposition of the urine and in the treatment of putrefactive wounds sores, and proposes to use a fermenting solution of malt extract for injecting into the bladder. "Bynin" is, he considers, from its liquid character and easy miscibility with water, especially convenient for the suggested purpose. It (like other extracts of malt) is already impregnated abundantly with the germs of the lactic ferment, and when it is diluted with ordinary water it passes at once spontaneously into lactic fermentation. Experiments made in the laboratory indicate that water containing from 10 to 20 per cent. of bynin would make a suitable solution for injecting into the emptied bladder once, twice, or thrice a day.



## MAXIMUM DOSE TABLE.

A Shanghai correspondent suggests that the subscribers to THE CHEMIST AND DRUGGIST should communicate to us particulars of the largest doses of potent medicines which they have dispensed, so that a table may be compiled. He has often hesitated when he has had prescriptions presented to him, ordering such doses as quinine sulphate gr. xx., potassium iodide gr. xv., calomel gr. x., hydrarg. perchlor. gr.  $\frac{1}{2}$ , and so on. There is something to be said for and against our correspondent's proposal. It is very useful to know of extraordinary doses which have been dispensed, but it is obvious that, if these are not to mislead other dispensers, particulars of the case in which they have been given must also be stated. For instance, we have frequently dispensed 10 to 15 grains of calomel, or even more, and have not hesitated on learning that the patient was in an apoplectic fit. But that dose would give a patient not in that condition a severe shaking. The dose of succus conii is ʒss to ʒi—we have dispensed dessert-spoonful doses for a lad of 16, suffering from chorea, and in other special cases we have dispensed chloral hydrate, ext. cannab. ind., morphine in doses such as would be fatal in the common run of cases. Obviously it would be in the highest degree dangerous to put down such doses as the maxima without any qualification whatever. This matter is pretty fully referred to in "The Art of Dispensing," and we notice that "Squire" also mentions large doses which are given in exceptional cases.

## A POSSIBLE SUBSTITUTE FOR DIGITALIN.

Prof. Plugge, of the University of Groningen, a prominent Dutch pharmacognosist, has been investigating the alkaloid cerberine, the poisonous principle of *Cerbera Odollam*, the Bintaro-apple of the Dutch East Indies, and also well known in our own Indian possessions. This Bintaro is a very common tree in the Dutch colonies, and bears a fruit somewhat resembling the apple in shape and colour. Upon opening the fruit a fibrous texture akin to doofah presents itself, rendering it a matter of some difficulty to reach the almond-like seeds. The seeds contain about 75 per cent. of a highly poisonous fatty oil, which is occasionally employed by the Javanese for burning. Cerberin was first isolated about thirty years ago by Dr. de Vrij, who brought a small supply with him to Europe, and handed it over to an analyst of his acquaintance, who unfortunately lost the specimen. In 1888 the Bintaro-seed was again subjected to analytical examination at the Buitenzorg Botanical Gardens, with the result that two poisonous principles, cerberin and odollin, were discovered in it. The latter, however, could not be obtained in the free state. Dr. Plugge has recently experimented with a large quantity of the seeds which he had procured from Java and from Madras, and finds cerberin ( $C_{27}H_{45}O_5$ ) to be a sparingly soluble glucoside, closely resembling tanghinine (from the *Tanghinia venenifera* of Madagascar) in its composition. Cerberin has a powerful action upon the heart. He is of opinion that cerberin possesses all the therapeutic advantages, and none of the drawbacks, of digitalin, and may, after further experimental investigation, take the place of the last-named remedy.

## THE FOUNDATIONS OF "PHARMACOGRAPHIA."

We have already referred to the gift by Mr. Thos. Hanbury of a number of rare pharmacognostic and botanical works to the libraries at Bloomsbury Square and Kew. It appears from a note in the *Kew Bulletin* that among the books presented to the Kew Museum are many used by Mr. Daniel Hanbury in the preparation of "Pharmacographia." Most of these treat of economic or medical botany, and several are of very early date. They include a fifteenth-century translation (in atrocious dog-Latin) of an Arabian author (Serapion) on medicinal plants. This book, which is exceedingly rare,

has no separate title-page (the title being at the head of the first page of the text) and is beautifully printed in double columns. Its first publication at Milan is recorded in the words "Opus Impressum M<sup>i</sup> Per Antūm Zarotum Parmensem Anno domini Mcccclxxiii Die Mercuri iiii August." The later edition, published at Strasburg in 1531, is the one usually cited, as it is easier to read and has an index, which is wanting in previous editions. "Das Destillier Buch, das Buoch der rechten Kunst zu distilliren," another curious book in the collection, was printed in 1515. The title-page and part of the preface are wanting in this copy, and here and there a leaf is imperfect, otherwise it is in excellent condition. Appended to the foregoing is "Das buoch des lebens Marsilius Ficinus von Florenz zu dem gesunden und langen leben der recht arzneien von latin erst nūw zū tütsch gemacht." The woodcuts representing the plants described in the first part of this work are mostly very rude; but the scenic illustrations of the second part are excellent specimens of the art. The figures of persons are especially good. Another interesting book is "The Treasury of Evonymus, conteynge the wonderfull hid secrets of nature. . . . Translated (with great diligence and laboure) out of latin, by Peter Morwyng fellow of Magdaline Colledge in Oxford." Imprinted at London by John Daie, dwelling over Aldersgate, beneath Saint Martines. "Cum privilegio ad imprimendum solum." The book opens with an address by John Daye "to the Christian Reader," dated 1559. This book is a translation of Conrad Gesner's "Thesaurus de Remediis Secretis," Lugduni (Leyden), 1555. It is illustrated by neat little woodcuts, mostly recognisable, though sometimes oddly named; and the same cut is sometimes made to do duty for two or three different plants. Thus, the figure representing *Fraxinus* is repeated under *Tilia*.

## CHEMISTRY AS SHE IS UNDERSTOOD IN INDIA.

The following answers were collected from a written examination in chemistry held in connection with a well-known Indian University:—

Sulphur is a smellful gas.

Nitrogen is a remarkable lazy gas, and is good for nothing.

Carbon always exists in a dark room.

There is no living being in the whole world that does not contain carbon.

Gas is made by filling a poker with coal and heating it.

Alumina is used in medicine to open the bowels.

Chlorine gives botheration to the throat.

Hydrogen is a colourless, invincible gas, and burns itself without any bodies help.

Nitric acid is used in the preparation of currant electricity. It is very bad for teachers to pour it in our hands.

Soda is formed by heating castor oil and potash.

Caustic soda is used in the manufacture of soda-water, and this is used in medicine for purgative purposes.

Caustic soda is used as a summer drink.

Quicklime is made by pouring water on slaked lime.

Quicklime is made from smooth pebbles, and is good for worms.

We can eat this substance ( $CaO$ ); it has the power of digesting food.

Lime destroys the excess of vegetable matter, and nothing in the whole world is an exception to the above fact.

Lime is used as a kind of gum for builders to stick bricks together.

There are two kinds of phosphorus—red and blue

Preparation of phosphorus.—The powder, which is got from the roots of plants, is mixed with  $H_2SO_4$  and water, and it is then filtered through paper filter. The refuse that is thus got is heated, when dense red fumes of phosphorus come, which may be collected by downward displacement, and may be rolled into sticks of phosphorus.

THE St. Marylebone Guardians have accepted the tenders of Messrs. Burgoyne, Burbidges & Co. for drugs and druggists' sundries.



## ADULTERATED CASTOR AND OLIVE OILS.

By E. J. PARRY, B.Sc., and P. A. ESTCOURT, A.I.C.

DURING the last six months we have had a large number of samples of castor oil and olive oil sent to us for analysis, and have been surprised to find what a small proportion of them were genuine. Out of fourteen samples of castor oil six were genuine and eight adulterated, and from fourteen samples of olive oil three were pure and eleven adulterated. Any sample of castor oil whose specific gravity does not fall within the limits of .956 and .966 should be viewed with grave suspicion, and if it be below .950 or above .969 is almost certainly adulterated. The saponification equivalent of pure castor oil—that is, the number of grammes saponified by a litre of normal alkali—should fall between 310 and 320, and the iodine absorption, according to Hübl, falls between 84 and 84.7: our own experiments give 85. As will be seen from Table I., none of the figures obtained agreed with these. With regard to the rise in temperature when mixed with an equal weight of sulphuric acid—that is, 2 volumes of oil to 1 of sulphuric acid (97 per cent.)—our figures do not agree with those recorded by other observers. Allen gives 65° C., Arehbutt gives 46° C., and we have repeatedly found 72° to 74° for castor oil of undoubted purity.

Table I.

	Specific Gravity	Saponification Equivalent	Iodine Absorption	Temperature Rise
1	.9735	400	67	60° C.
2	.9721	420	65	62° C.
3	.9723	400	64	63° C.
4	.9740	445	—	60° C.
5	.9765	428	—	62° C.
6	.9752	403	—	61° C.
7	.9739	440	—	60° C.
8	.9719	440	—	62° C.

The usual adulterants of castor oil are poppy-seed, coconut, lard, rosin, and blown oils. The figures above quoted practically exclude all but rosin and blown oils. Moreover, in every case the samples were freely soluble in glacial acetic acid, which is a further indication of the absence of other oils. Since the gravity of blown oil seldom rises above .970, and its saponification equivalent seldom exceeds 284, we were confident that rosin oil was the adulterant used. The high gravity and saponification equivalent were confirmatory of this, as was the low iodine absorption. And if our observations on pure castor oil were correct, as we certainly believe them to be, in the case of the rise in temperature, the observed rise in the case of the impure samples pointed to the presence of hydrocarbons. To absolutely confirm our suspicions we used three further tests of extreme simplicity, but of great utility. A drop of the oil was placed on the back of the tongue, and in a minute nothing but the disagreeable taste of rosin oil could be detected. The samples did not appear fluorescent in bulk, but when mixed with an equal volume of ether and examined in tubes they were distinctly fluorescent. This is the usual method of observing the fluorescence of oils, but in the case of viscous oils, like castor, we have found the fluorescence much more intense when the sample without admixture with ether is allowed to run down the side of a thin glass tube and the thin layer adhering to the side is examined. Under these conditions the samples were extremely fluorescent. Finally, a few drops of each sample were dissolved in carbon bisulphide and treated with stannous bromide, with slight excess of bromine. In every case a fine coloration, from deep red to rich purple, was obtained, pure castor oil yielding little or no colour. Thus every single sample was clearly proved to be

adulterated with rosin oil. By adding absolute alcohol in the proportion of 2 parts to 1 of oil a large portion of rosin oil separated out, and by treatment with slaked lime most of the rosin oil combined loosely with the alkali, and the castor oil when filtered off from the lime compound had a specific gravity of .9665. By separating the rosin oil out by the addition of alcohol its specific gravity can be taken, and the percentage of rosin oil approximately calculated. However, we found that saponification of the oil with alcoholic potash, evaporating, to drive off the alcohol, and extracting the unsaponifiable matter with ether, was the most direct method of ascertaining the proportion of rosin oil, which we found to range from 35 to 40 per cent.

Before passing on to the samples of impure olive oil, it will be as well to review the results which are obtained from the genuine oil.

The specific gravity is one of the most important features in enabling one to judge of the quality of the oil to be examined. Of many genuine samples examined by us the specific gravity at 15.5° C. (60° F.) compared with water at the same temperature never exceeded .917. In fact, we have never found so high a gravity. Low densities have been observed, but .914 is the lowest we have come across, and the sample having this density contained a considerable amount of free acid. The general adulterants of olive oil are cotton-seed, poppy-seed, arachis, sesame, rape, and hydrocarbon oils. The addition of any of these oils except rape and the lighter hydrocarbons would tend to increase the density. The saponification equivalent is not of much value in assisting us to detect the adulteration in the oils, the saponification numbers of the oils generally used for sophisticating olive oil being nearly the same as those of the pure oil. If the adulterant were a hydrocarbon oil, or one from a cruciferous plant, the test would be of great value, as in these cases the saponification equivalent would be sensibly higher than those found for pure olive oil.

The observation of the rise of temperature with sulphuric acid is a most important factor, and may be considered to be, if not the most important, one of the most valuable tests of those used to ascertain the genuineness or otherwise of the olive oil submitted for analysis. Pure olive oil, according to many observers, gives 39° to 44°; our own experiments with the pure oil gave 40° to 43°. The usual adulterants of olive oil give much higher figures than these. We found the elaidin test of little value, except, of course, in indicating that the samples were sophisticated; for identification of the adulterant our results were not such as would allow us to pass an opinion as to the oil used for mixing with the olive oil.

The behaviour of the samples of oil with glacial acetic acid (E. Valenta, *Dingl. polyt. J.*, cclii. 296; *Jour. Chem. Soc.*, xlv. 1078) was observed. Equal parts of the oil and glacial acetic acid were mixed and gently heated, with shaking, until the oil dissolved in the acetic acid. Our observations gave for the pure samples we examined 95° C., whilst our figures for the oils suspected of not being genuine were very much lower in every case. The importance of this test can only be appreciated after long and careful trial.

We also used Hübl's iodine-absorption method. For pure olive oil Hübl gives 81.6 to 84. Our own experiments gave 81.0 to 84.5 for the pure oil. The figures obtained from the oils commonly used as adulterants are much higher than this, as were the figures we obtained from our samples.

We applied still another valuable test—that of the melting-point of the fatty acids, obtained after saponifying a quantity of the oil with alcoholic potash, breaking up the soap with sulphuric acid, and washing free from the latter with distilled water. The fatty acids of pure olive oil obtained in this manner we found almost liquid at 23° C., whilst many of the oils before mentioned melted at as high as 35° C.



Our melting-point figures for the oils submitted for analysis were very much higher than those of pure olive, whilst they were slightly lower than those of cotton-seed oil. Our general figures are embodied in Table II.

Table II.

—	Specific Gravity	Rise of Temperature	Iodine Absorption	Saponification Equivalent	Valenta
1	·9199	60° C.	100·0	288	68° C.
2	·9182	60° C.	97·5	288	60° C.
3	·9186	60° C.	93·0	286	55° C.
4	·9194	55° C.	96·5	233	55° C.
5	·9190	57° C.	99·0	297	50° C.
6	·9167	65° C.	96·5	288	58° C.
7	·9167	64° C.	97·0	288	55° C.
8	·9188	66° C.	96·0	290	55° C.
9	·9187	64° C.	97·5	290	50° C.
10	·9188	62° C.	96·5	288	54° C.
11	·9187	67° C.	97·5	289	52° C.
Pure oil	·9170	40–43° C.	81–84·5	285 to 296	95° C.

On examining these figures, we found that the specific gravity, combined with the saponification equivalent, showed the absence of a hydrocarbon oil. The difficulty was now to identify, if possible, the foreign vegetable or fat oil present. Except the saponification figures, no others agreed with those found by us of oils of known purity. Arachis oil of the poorer quality could have been used, the specific gravity of the poorer class being ·920; but we examined for this oil by Renard's test, and were able to say that it was not present. In the same manner sesame oil, on account of its gravity and other general figures, might have been the adulterant, but, carefully using the colour-tests, we were able to dismiss it from our minds. We next turned our attention to cotton-seed oil, this oil being one used very largely for the purpose of adulterating olive oil, on account of its pleasant taste and general adaptability for eating and culinary purposes. We found that the high melting-points of the fatty acids of the samples submitted to us agreed well with that of cotton-seed oil, whilst the general colour-tests and elaidin tests also confirmed our suspicions.

To further strengthen our opinion that cotton-seed was the adulterant, we carefully prepared the fatty acids of the suspected oils and dissolved them in alcohol, and then, after the addition of nitrate of silver, heated some to the temperature of boiling water. After some little time the silver was much reduced, and much blackening was observed. It may also be remarked that, on heating the fatty acid obtained after saponification for some time at the temperature of boiling water, the characteristic odour of cotton-seed oil was noticed, so that, by a review of these results, we were enabled to return every one of these samples as adulterated with cotton-seed oil.

## Gazette.

### PARTNERSHIPS DISSOLVED.

**Bale, A. J., and Baker, G. H.,** under the style of Baker, Bale & Co., Newgate Street, E.C., importers of Irish bog ore, and precipitated oxide of iron, spent oxide, and sulphate of ammonia contractors, English and foreign hay and straw merchants.

**Thomson, D., Brushfield, T., and McArthur, D. R.,** under the style of Thomson, Brushfield, & McArthur, Luton, physicians and surgeons; so far as regards T. Brushfield.

**Williams, T. J., and Williams, F. G.,** under the style of R. Hendrie & Co., at Regent Street; King Street, Regent Street, W., and Edinburgh, perfumers.

### THE BANKRUPTCY ACTS, 1883 AND 1890.

#### RECEIVING ORDER.

**Kellett, Robert Guy,** New North Road, Hoxton, N., and Cazenove Road, Stoke Newington, N., surgeon.

## PURIFICATION OF BISMUTH.

IN his recent communication to the Royal Society on the metallurgy of bismuth, Mr. Edward Matthey dealt with the separation of arsenium and antimony from that metal. The processes hitherto employed for that purpose are somewhat tedious and expensive, but what Mr. Matthey now proposes is simply to heat the metal to certain temperatures. He observed, in smelting about three-quarters of a ton of the metal, that a little above the melting-point of bismuth dense white fumes were given off, which proved to be arsenious oxide. The metal contained 0·65 per cent. of arsenium, and, although arsenium volatilises at 180° C., in this case none came away from the bismuth until the latter melted—viz., at 278° C. Most of the arsenium sublimed at 395° C., and it was completely eliminated from the bismuth at 513° C. Some ten to twelve tons of arsenical bismuth have already been treated in this very simple way, and it has been satisfactorily ascertained that there is no loss of bismuth by volatilisation with the arsenium.

The elimination of antimony depends on a similar simple process. In this case, while working on a sample of bismuth containing 1 per cent. of antimony, Mr. Matthey noticed a peculiar oily film on the surface of the metal towards the boiling-centre. This film was fused oxide of antimony. The operation was continued, the metal being stirred from time to time with a dried wood stirrer. In the course of three or four hours, removing the film from time to time, the surface of the melted metal assumed a much brighter appearance, and on carefully testing it at this point, the metal was found to be absolutely free from antimony. The result was confirmed with a sample of a metal having the following composition:—

Bismuth, by difference	..	..	..	93·20
Antimony	..	..	..	0·80
Tellurium	..	..	..	0·40
Lead	..	..	..	2·10
Copper	..	..	..	0·50
Arsenic	..	..	..	traces
				100·00

The point at which the separation of antimony occurs, was found to be about 350° C., and at this temperature the metal was maintained for about five hours; then there was still a little remaining in the alloy. The temperature was raised, and maintained at 458° C. for about four hours, at the end of which time the bismuth became absolutely free from antimony. The form in which the antimony separated was peculiar—a transparent glass, consisting of antimony oxide, containing about 10 per cent. of bismuth; but, of course, in the removal of the antimony oxide a small proportion of the bismuth was mechanically carried with it. That was practically all the loss of bismuth—viz., less than 1 per mille.

Mr. Matthey has not yet dealt with the elimination of tellurium, but in previous papers he has shown how gold, lead, and copper may be separated from large quantities of bismuth. His results with tellurium will be of exceptional interest to pharmacists.

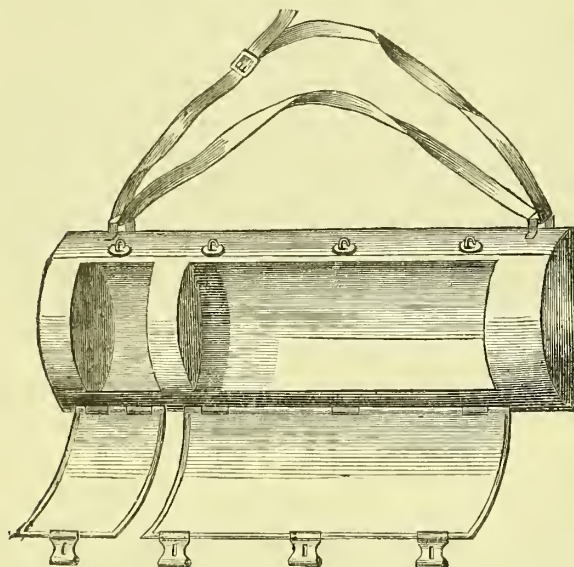
## New Company.

**PONTARDULAI'S CHEMICAL COMPANY (LIMITED).**—Capital 12,000*l.*, in 10*l.* shares. Objects: To carry on the business of chemical manufacturers, hitherto carried on by S. Williams, and to carry on the manufacture of vitriol, copperas, sulphate of copper, hydrochloric and oxalic acids, &c. The first subscribers (who take one share each) are:—R. H. Sampson, Pontardulais, tinplate manufacturer; D. Richards, Ammanford, tinplate manufacturer; T. Davies, Pontardulais, tinplate manufacturer; R. Harries, Pontardulais, tinplate manufacturer; W. Watkins, Swansea, tinplate manufacturer; T. Freeman, Swansea, tinplate manufacturer; J. Williams, St. Helen's Road, Swansea, tinplate manufacturer. There shall not be less than three nor more than seven directors, and the subscribers are the first; remuneration to be determined in general meeting.



## HOW TO PREPARE PLANTS FOR THE HERBARIUM.

PLANTS intended for the herbarium should, as a rule, be mounted as soon as possible after gathering. The collecting-box should not be packed too full, or the plants will generate heat and decompose; nor should it be insufficiently filled, or they will wither and become brittle. The withering process, however, may be retarded by sprinkling a few drops of water inside the box. Like all other rules, that of immediate mounting has certain exceptions. There are some plants—for instance, the *Linaceæ*, the *Cistaceæ*, and the sunflowers—which flower early in the morning, and of which the petals drop off shortly afterwards. If such plants, showing buds just about to open, are collected, it is well to delay the mounting until the following morning, as the buds will open in the collecting-box after they have been culled.

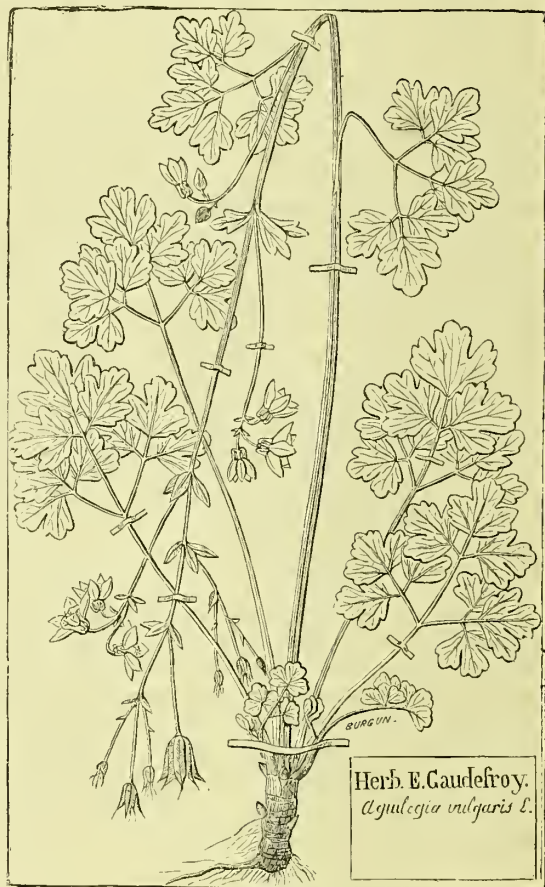


The contents of the collecting box should never be emptied all at once, but the plants taken out either singly or by Natural Orders, and the box closed immediately after. The apartment in which the work of preparing is done should be very light, well aired, and dry. The botanist should have within easy reach upon his table the mounting-paper at one hand, and the covering at the other. The earth adhering to the plants should be carefully removed (without injuring the roots) by rubbing the earthy part between thumb and forefinger, or by shaking it lightly. The plant should then be placed carefully upon the mounting-paper, care being taken to preserve as nearly as possible the natural habit of growth. If the plant is much longer than the mounting-paper, it should be carefully bent as shown on our sketch. Breaking the stem may be avoided by first tapping or flattening it with the finger over about a quarter of an inch of space at either side of the central point of the curve. The mounter should also watch that the flowers, or other parts of the bent portion, are not injured by the root of the specimen. If the plant has a very thick crown, the best plan will be to mount the upper portion first, and bend down the stalk with the roots upwards, thus reversing the process shown in the sketch.

If two or more specimens are mounted on one sheet of paper, they should be alternated in reverse position, the crown of the second specimen being placed next to the root of the first, and so on. The leaves should be left as much as possible in their natural position, but where they are not naturally flat, a few should be flattened out, the better to show the outline and the markings. A few leaves, moreover, should always be mounted so as to show the reverse, and if, as often happens, the specimen contains too

many leaves to allow it to be mounted comfortably and neatly, the superfluous portion should be removed in such a manner that the remainder shall not convey an erroneous idea of the natural growth of the leaves. For this reason it will often be found advisable not to remove the leaf entirely, but to preserve its base. The same observation applies, to some extent, to the twigs and branches. Flowers should only be removed in exceptional cases.

If a selection of specimens is available, those of medium size and fairly representative of the type should, as a general rule, be preferred. Where a tall specimen has to be dealt with, it may either be cut up in lengths to suit the mounting-paper (about 1 foot will usually be found the most convenient), and mounted on separate leaves, which may be joined when ready, or (and this is the best way where the undergrowth of the plant does not show any special characteristics) the crown alone may be cut off and preserved. The former proceeding is the more suitable for spreading



plants—*Senecio paludosus*, for instance, or *Sonchus palustris*, or *Epilobium hirsutum*.

Polypetalous flowers should be opened out in order to show as much as possible of their formation. If they are irregular it is well to prepare each part of the flower separately, but in any case, whether irregular or no, a few flowers should, if possible, be detached from the specimen, and mounted separately, either whole or so as to show the section or other parts which cannot easily be shown when the flowers remain attached to the stem. In some cases (*Cypripedium*, for example) the cavity of the flower should be filled with cotton-wool or a piece of blotting-paper inserted in it. This not only hastens the drying process, but renders subsequent study of the flower more easy.

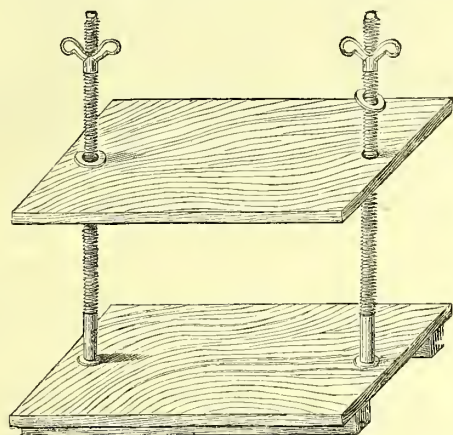
The flowers separated from the plant may be gnmmed to small sheets of white paper, and again united to the specimens to which they belong.

When the specimens have been mounted, each sheet is placed between covers and provided with a label giving the



name of the plant, the date, place, and altitude of its collection, and the nature of the soil in which it grew.

The final stage in the process of preservation is the



SCREW-PRESS.

pressing. A simple screw-press, such as here shown, is most suitable for this purpose, and the pressure should at first be very slight, though it may gradually be increased.

## C. & D. Recipes.

Contributed by Subscribers of THE CHEMIST AND DRUGGIST.  
Further contributions of tried recipes will always be welcomed by the Editor.

### Essence of Rennet.

1 fresh rennet.	
Common salt .. .. .	3ij.
Tartaric acid .. .. .	ʒj.
Tepid water .. .. .	Oiss.

Chop the rennet small, and macerate for two days with the other ingredients; strain, and add

Oil of cloves .. .. .	℥x.
Oil of nutmeg .. .. .	℥x.
Essential oil of almonds .. .. .	℥v.
Brandy .. .. .	3ij.

Dissolve the oils in the brandy. Set the essence aside until it is clear, then decant the clear portion and filter the rest.

A teaspoonful to a pint of milk for curds.

### Mixed Spice.

Powdered coriander .. .. .	3xxvj.
" pimento .. .. .	3iv.
" caraway .. .. .	3iv.
" cinnamon .. .. .	3ij.
" mace .. .. .	3ij.
" cloves .. .. .	3ij.
" nutmeg .. .. .	3ij.
" turmeric .. .. .	3j.

### Imperial Sauce.

Anchovies .. .. .	32 oz.
Shallots (sliced) .. .. .	8 "
Garlic (sliced) .. .. .	8 "
Chillies (bruised) .. .. .	8 "
Brown sugar .. .. .	8 "
Horse-radish (scraped) .. .. .	16 "
Bay salt .. .. .	16 "
Cloves (bruised) .. .. .	3 "
Mace (bruised) .. .. .	2 "
Cochineal (bruised) .. .. .	1 "
Curry-powder .. .. .	1 "
Vinegar .. .. .	2 gallons
Mushroom ketchup .. .. .	1 1/2 "
Walnut ketchup .. .. .	1 "
Indian soy .. .. .	1/2 "

Boil the whole together for twenty minutes, and strain through dannel. Allow to settle, and bottle the clear sauce.

### Sauce Piquante.

Horse-radish .. .. .	3j.
Salt .. .. .	3iv.
Mustard .. .. .	3ij.
Shallots .. .. .	3ss.
Celery seed .. .. .	3ss.
Cayenne .. .. .	3ss.
Tarragon vinegar .. .. .	Oj.

Bruise the solids, and macerate in the vinegar for fourteen days; then strain.

### Savoury Ragout powder.

Salt .. .. .	3j.
Mustard, black pepper, and lemon-peel (grated), of each .. .. .	3ss.
Pimento, ginger, nutmeg and cayenne, of each .. .. .	3ij.

M.

### Favourite Relish

#### For Roast Pork and Goose.

Green sage-leaves .. .. .	3j.
Fresh lemon-peel, salt, and minced shallots, of each .. .. .	3i.
Cayenne and citric acid, of each .. .. .	3ss.
Claret .. .. .	Oj.

Macerate fourteen days and strain.

### Quin's Fish-sauce.

Bruised anchovies and shallots, 6 of each.	
Cayenne .. .. .	3ss.
Soy .. .. .	3ss.
Port wine and walnut pickle, of each .. .. .	3ij.
Mushroom ketchup .. .. .	3vj.

Simmer gently for ten minutes, and bottle.

### Savoury's Hot Pickle.

Cayenne .. .. .	3ij.
White pepper, black pepper, and mustard-seed, of each .. .. .	3j.
Ginger .. .. .	3ij.
Common salt .. .. .	3vj.
Vinegar .. .. .	Oiv.

Boil for twenty minutes, and strain.

### Sauce au Roi.

Cayenne .. .. .	3j.
Cloves and shallots, 6 of each.	
Walnut-juce and Indian soy, of each .. .. .	3v.
Vinegar .. .. .	Ovj.

Boil for twenty minutes, and strain.

### Sauce l'Empereur.

Cloves, mace, and pimento, of each .. .. .	3j.
Anchovies and walnut-juice, of each .. .. .	3xxvj.

Boil and add—

2 shallots.	
Indian soy .. .. .	3v.
Port wine .. .. .	3x.
Vinegar .. .. .	Oj.

Boil and simmer for twenty minutes, and strain.

### White Oils.

Ol. terebinth. .. .. .	3iv.
" sesamæ .. .. .	3xij.
" viridis .. .. .	3iv.
" origani .. .. .	3j.
Liq. vol. c.c. .. .. .	3xij.

Mix thoroughly.

### Worm cakes.

Pulv. jalapæ .. .. .	3x.
" zingib. .. .. .	3v.
" scammon. .. .. .	3v.
Tritici farin. subtil. .. .. .	3xx.
Theriac. .. .. .	3xx.
Ol. limonis .. .. .	3ss.

Mix the powders, add the lemon, and knead the treacle well in. Divide the dough into 200 cakes, and bake crisp.

### Arnica Opodeldoc.

Tr. opii. .. .. .	3j.
" arnicæ .. .. .	3ij.
Liq. saponis ad .. .. .	3les.

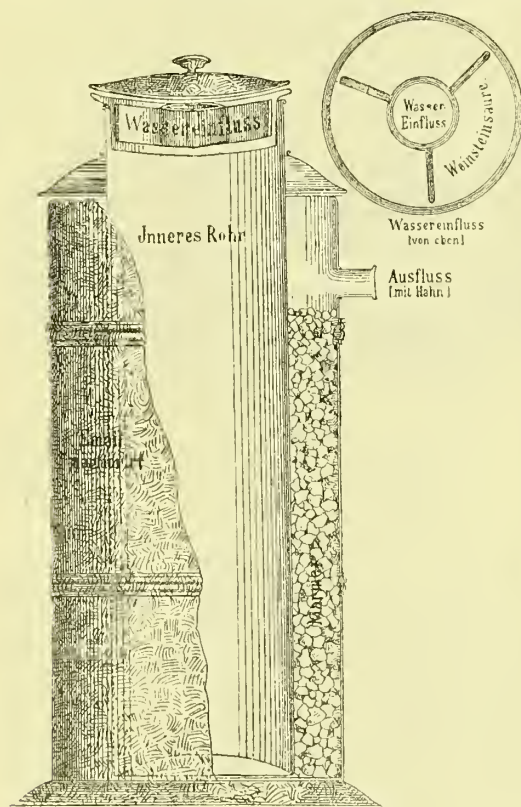
M.



## Notes of Nobelties.

### A BACTERICIDAL WATER-FILTER.

It has long been known that in times of cholera disturbance it is a useful precaution to add some harmless acid to drinking water. This, until the outbreak last year, was regarded as a prophylactic, but bacteriologists then discovered that some acids kill cholera bacilli quickly, and this is as true of the organic acids as the mineral acids. It was for that reason that natural lemonade was so strongly recommended last summer, and in that connection we briefly reported in our issue of December 31 some experiments by M. Girard, chief of the Paris Municipal Laboratory, with citric acid, which he found to completely sterilise water containing cholera bacilli. Tartaric acid, we understand, has a similar effect, and taking advantage of this fact Dr. Hans Brackebusch has devised a filter for the sterilisation of water by means of tartaric acid. The construction of the filter is shown in the illustration. It consists of two parts—an inner within



an outer cylinder, the interspace being packed with small pieces of marble up to three-fourths of the total weight. Into the top of the inner cylinder is fitted a perforated tray, which is divided into three for the reception of tartaric acid in large crystals. It is only when the water is very bad, as in hot and cholera-stricken countries, that all three spaces are filled with the acid. Each space, we may say, holds about 2 drachms of acid. On filling the inner cylinder with water it is evident that the acid will be dissolved; then, as the water ascends the outer cylinder through the marble to the outlet tap, the acid is gradually fixed by the calcium carbonate, so that when drawn off the water does not taste sensibly acid, and it is slightly charged with carbonic acid gas. Such is the method of working the filter. As to its effects on water containing cholera bacilli, we have before us a report by Professor R. Fresenius which is of a highly satisfactory nature. At different times he has added to sterilised water a broth-culture of cholera bacilli, and this he passed through the filter. One cubic centimetre samples of the

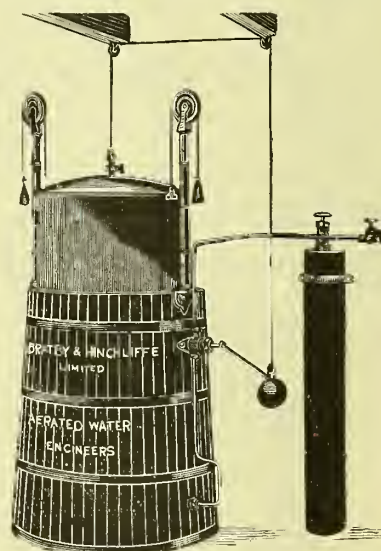
water put in, and of the filtrate, were tested by plate cultures, and the results are shown in the following table. The water was infected at 11.20 A.M. :—

Time	Infected Water	Filtrate
11.20 A.M.-11.40 A.M.	Innumerable cholera bacilli	No cholera bacilli and very few other bacteria
12 noon	ditto	ditto
1 P.M.	ditto	ditto
2.30 P.M.	ditto	ditto
4 P.M.	ditto	ditto
5 P.M.	ditto	ditto
6 P.M.	ditto	ditto
7 P.M.	ditto	ditto
9 P.M.	sterilised	ditto

These results were corroborated by independent experiments on two occasions, and Professor Fresenius comes to the conclusion that twenty minutes' contact in the filter suffices to render a cholera-infected water perfectly innocuous. We have not had the opportunity of personally corroborating these results, but Professor Fresenius's reputation bears great weight, and the principle of the filter is perfectly sound. Messrs. Hertz & Collingwood, of Sussex Place, Leadenhall Street, E.C., have secured the agency for the filter for this country, and they expect to be able shortly to place it upon the English and colonial markets.

### LIQUEFIED CARBONIC-ACID GAS-REGULATOR.

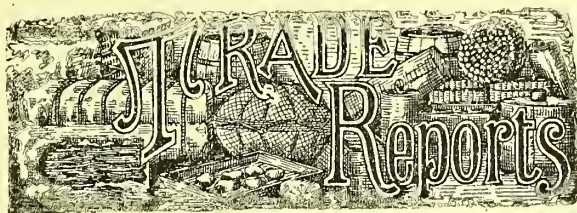
THE appended drawing represents an arrangement which Messrs. Bratby & Hinchliffe (Limited) have devised for the automatic regulation of the supply of carbonic-acid gas from the cylinders containing it in liquid form, which appears to be growing in popularity. In this arrangement



in order to supply the gas to the gasometer it is only necessary to attach the counter-balance weight of the gasometer to one end of the lever, and the rise and fall of the gas-bell effectually regulates the supply until the whole of the gas is exhausted from the tube. The contrivance is by no means costly, and it is obviously of considerable convenience where the liquefied gas is used.

THE ENGLISH FULLER'S EARTH DEPOSITS.—Fuller's earth is mostly found in the vicinity of Reigate, Dorking, and Leith Hill, three of the many charming districts in which the county of Surrey abounds. It is extracted in the form of a very soft stone, which crumbles at the touch, and it has to go through a process of manufacture before it is sold in the form in which chemists dispense it. Last year the quantity stated as having been extracted was 4,500 tons, and its value was estimated at 10,500/.





**Notice to Retail Buyers:**—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., April 6.

### The Coming Java Cinchona Crop.

From a return just to hand which has been compiled by the Java Planters' Association, a Commission of which has collected statistics from all the plantations on the island, (with a very few unimportant exceptions), it appears that the exports for the year 1893 are likely to amount to 3,783,839 kilos. of bark (against 3,232,922 kilos. in 1892), representing 169,761 kilos. sulphate of quinine, as compared with 138,315 kilos. last year. The average percentage of the bark this season (quin. sulph.) is estimated at 4.48; last year it was 4.27. If these figures prove approximately correct (as the statistics for the last four seasons have done), the present year's exports will exceed by about 10 per cent. those of 1891, when they were the highest on record, and will surpass those of 1892 by 17 per cent. in weight and by 23 per cent. in quinine value. "This increased production (the Commission report) is in some degree due to the total or partial uprooting of a few plantations, and in some degree to the fact that younger plantations of a higher standard are gradually being brought into exploitation." "Java," they add, "still remains on the wrong edge of over-production, and caution should be exercised in harvesting and in laying down new plantations." Out of ninety-seven plantations now in existence on the island, five are not yet harvesting anything, six will produce a crop for the first time this season, three have been wholly or partially uprooted, and six are temporarily suspending their bark shipments.

**ACID (ACETIC).**—The demand keeps up well, and prices remain steady, B.P. acid (33-per-cent.) at 18s. 6d.; higher strengths at from 30s. 9d. to 46s. 6d.; and glacial at 51s. 3d. per cwt.

**ACID (CARBOLIC).**—Liquid acid remains very firm at 2s. per gallon for 95-98 per cent. Crystals are fairly steady at 6½d. to 6¾d. per lb. for 34-35° and at 7½d. to 7¾d. per lb. for 39-40°.

**ACID (CITRIC).**—The dealer who offered fair commercial citric acid at 1s. 5d. per lb., usual terms, last week, states that he is still a seller at that figure. The English makers of B.P. quality have reduced their price to 1s. 5½d. per lb.

**ACID (TARTARIC).**—Slow of sale at 11d. to 12d. per lb., according to brand.

**ANISE.**—*Chilian* anise has lately been sold at 20s. 6d. per cwt. in Liverpool. *Spanish* seed is very scarce here, and for *Malta* on the spot the high price of 40s. per cwt. is asked.

**BALSAM COPAIBA.**—The market remains firm at 1s. 7½d. for cloudy to 1s. 8¾d. per lb. for fine bright Maranham. These are the last figures at which sales are reported from Liverpool.

**BUCHU.**—Our already heavy stock has been further reinforced by the arrival of 44 bales (not counting 10 bales in transit) per *Lismore Castle*.

**CAMPHOR (CRUDE).**—On the spot *Japan* camphor is still quoted at 165s. and *China* at 155s. per cwt., but for arrival (April-May shipment) *China* camphor is offering at much lower rates—viz., 117s. 6d. per cwt., c.i.f. terms. A sale of *China* (March-April) is reported to-day at 120s., c.i.f., Hamburg, and *Japan* (same date of shipment), is offering at 142s. 6d., c.i.f.

**CAMPHOR (REFINED).**—There is no change in the English quotations. The German refiners, whose prices were rather high in comparison with those of the British makers, to-day reduced their quotation from 1s. 11d. to 1s. 10½d. per lb. net.

**CINCHONA.**—The following figures refer to the exports of cinchona from Ceylon during the periods between January 1 and March 13:—1893, 1,127,627 lbs.; 1892, 1,064,495 lbs.; 1891, 1,203,257 lbs.; 1890, 1,589,776 lbs. A shipment of 32 bales Crown and grey barks, and another of 24 bales red bark, are on the way from South America.

**CLOVES.**—At the end of last week an increased business in *Zanzibar* cloves was reported, and prices were firmer at 4½d. per lb. for June-August delivery. Since then, however, the bears have again obtained the upper hand, and to-day there are sellers, but no buyers, at 4½d. per lb.

**CREAM OF TARTAR** keeps very quiet at 77s. 6d. per cwt. for best white French crystals. Powdered cream may be had at 80s. per cwt.

**CUTCH.**—The market keeps firm, with small sales at steady prices.

**GINGER.**—*African* root has been arriving in considerable quantities in Liverpool, and a sale of 100 bags good quality ex-quity is reported from that port at 47s. 6d. per cwt. In London, *Cochin* ginger is also lower.

**GUM ACACIA.**—There has been a considerable arrival (400 cases) per *Lismore Castle* from Cape Town. In London fair picked *Trieste* grains have sold, in a small way, at 7l. 15s. per cwt. *Soudan* sorts are very dull of sale at 57s. 6d. to 70s. per cwt., according to quality. The stock is not a large one. Neither *Gehzirah* nor *Talca* gum are offered at present. There has been some small business in *Persian* gum, of which the stock is considerable. In Liverpool, however, *Soudan* gums continue to arrive, and the tone there is described as dull and easier. The last sales reported include hard ambery to fine white soft gum at 57s. 6d. to 75s., *Gehzirah* at 33s. to 37s. 6d., *Senegal* (*Galam*) at 49s. for fair natural, and 68s. to 69s. c.i.f. for fine selected, and *Brazilian* at 25s. to 25s. 3d. per cwt., the latter quotation showing an improvement in value. At to-day's auctions the demand for all kinds of acacia gum was very slow, and only about one-fourth of 2,600 packages offered found buyers—*Ghatti* (which is in large supply) at 1s. to 2s. decline, *Aden* at steady rates, and *Kurachee* (which is scarce) at very full prices. *Cape* gum also brought full rates. The following figures were paid:—*East Indian* gum, fair to good pale *Kurachee*, 54s. to 67s.; brown to red *Amrad*, 28s. 6d. to 35s.; *Ghatti*: Good to fine selected, 44s. to 62s. 6d.; medium to fair pale, 27s. to 30s. 6d.; dull dark, 24s. to 26s. 6d. per cwt.; *Bombay* pink, *olibanum*-scented, 43s. to 44s.; *Aden* ordinary sorts to good pink frosted, 35s. to 42s. 6d. per cwt. For *Cape* gum, small soft pale to white, 75s. to 95s.; small soft brownish to yellow, 27s. to 58s., good siftings, 61s. per cwt. For dark red *Australian*, 73s. per cwt. was paid. Several parcels of *Soudan* sorts, insoluble *Persian*, and *Red Sea* gums were bought in.

**GUM MYRRH.**—We are informed that the whole of the available stock of gum myrrh has been bought up by a dealer, who has raised the price of sorts by about 10s. per cwt., and of other kinds in proportion. Good *Aden* sorts are at present held for 90s. per cwt.

**GUM OLIBANUM.**—At to-day's sales medium qualities were rather easier, other kinds steady. Of 512 packages 80 sold, fair to fine pale drop at 35s. to 58s., fair reddish drop, 30s., siftings, 18s. 6d. per cwt.

**GUM TRAGACANTH.**—The demand keeps up well, and sales are being made at steady rates—from 14l. 10s. for fine pale *Bagdad* gum downwards. For good clear *Syrian* hog gum 85s. was recently paid. *Smyrna* tragacanth is in small supply and very firm.



**HONEY.**—Fine bright *Californian* honey continues to sell at 50s. per cwt. in Liverpool.

**INDIGO.**—A recent report, clearly inspired by a sanguine mind, describes the position of the article as follows:—"The quantity which has changed hands during the month does not exceed 300 chests. The declarations for the April sale, which is to commence on the 10th, close with the large total of 8,350 chests, but the quantity of currently saleable indigo is not excessive. The stock appears large, but, when analysed, is found to be in reality below that of last year in colouring matter, the falling-off in the stock of Bengal being no less than 4,600 chests. The whole supply of Bengal indigo for the year is now in warehouse, and it is a small quantity out of which to supply export and home trade demand for nine months. Of Kurpah we cannot expect to receive more than 1,500 to 2,000 chests during the next six months, and in Bombay supplies are practically exhausted. It is early yet to allude to crop prospects for the next season, but it is said that they were never more doubtful at this time of year. Unseasonable rains have necessitated re-sowing in many concerns, and prospects in Behar, the most important district, are decidedly against an average crop.

**IPECACUANHA.**—It is said that there has been a fair demand privately, at steady rates, although our stock is continually increased by arrivals, including one this week of 97 packages from Montevideo, per *Tagus*.

**LITHIA CARBONATE** is easier. The French makers are prepared to submit offers, and German brands (B.P. quality) may be had at 9s. 6d. per lb.

**OIL (CASTOR).**—The Calcutta market is described as very firm at present, with small stocks of oil and an insufficient supply of castor-seed for crushing. The quality of the new crop castor-seed is said to be unsatisfactory, the seed being generally damaged by rain.

**OILS (ESSENTIAL).**—Oil of *Lemongrass* is now quoted at 2½d. per lb. on the spot; *Citronella* at 1½d. per oz. *Star-anise* oil offers to arrive at 5s. 7d. per lb., c.i.f. terms, but does not find buyers at that figure. *Lemon* has fallen in price in Italy, in Messina as well as in Palermo, and owners are showing much anxiety to sell. *Menthol* remains steady, but unchanged at 10s. 7½d. to 10s. 9d. per lb. on the spot for fair quality. The reports of damage to the Bulgarian rose-crop are confirmed.

**OPIMUM.**—The London market, not having advanced to the same extent as that in Smyrna, has not experienced the full reaction which has set in, apparently, in the Levant. All importers ask very high prices, and many of them do not care to sell at all at present. It is now also reported that the *Persian* crop is likely to be a small one this season, but the rumour has not, up to the present, affected the price of the Persian drug to any marked degree. The quotations are now as follows:—Good to fine soft shipping, 12s. to 13s. 6d. per lb.; good to fine druggists', 11s. 6d. to 13s.; good seconds, 10s. to 11s. 6d.; Persian, 7s. 6d. to 11s. 6d. per lb. A Constantinople correspondent writes, under date of March 31:—"The abnormally severe weather which commenced at the beginning of last week, and still continues, proved the climax to the previous reports of damage to the opium crop, and values rose in an excited manner from 7s. 6d. to 12s. in three or four days. Two hundred cases were sold at up to the latter figure on this market, but a reaction has now set in, and prices are a trifle weaker. Values will probably drop a little consequent on the too rapid rise, but a further reaction for the better is practically certain ere long. Private and reliable news from the Akshair and Koniah districts tend to show that about 50 per cent. of the average of autumn and winter sowings were put under ground; of these 40 per cent. were damaged during January and February. The present weather prevents all spring sowings, and unless an improvement sets in the spring crop will also prove a failure. In another ten days or two weeks the season for sowing will be over. The present estimate of new crop is 2,500 to 3,000 cases." Our Smyrna correspondent writes, under date of March 25:—"Since our telegram of March 22 our opium market has gone mad. Early in the week current talequale was sold at the equivalent of 8s. 10d. per lb. f.o.b., but has since been run up to the extraordinary

figure of 12s. 7d., this last price having been paid yesterday by a speculator. It is true that a return of unfavourable weather has caused further injury to the crop, but it is still uncertain how far the spring sowings will compensate for the present deficiency, and this cannot be known for some time to come; therefore it still remains to be seen whether the late advance will be justified. The total sales last week amounted to 370 baskets, and this week to 270 baskets, making in all 640, equal to about 600 cases, 130 of which were taken by native speculators." To-day the London market is reported firmer again, in sympathy with Smyrna telegrams announcing a fresh rise and continued buying by speculators. It is said that there has been a good deal of business in Persian opium in London at prices ranging up to 11s. 6d. per lb. for fine.

**OPIMUM SALTS.**—The *Morphia* makers again ask higher prices—5s. 9d. per lb. for powder—and *Codeia* has been raised to 16s. per oz.; some even speak of 17s. per oz. It is stated that the present morphia prices are based even now, not upon the value of opium in Smyrna, but upon the London prices before the recent rise. The recent quotation of 14s. 3d. per lb. for manufacturing opium in Smyrna, it is claimed, represents a morphia value of about 7s. per oz.

**ORRIS.**—Our last reports from Italy are as follows: The demand for *Florence* orris has somewhat improved lately and prices are slightly firmer, while there is rather less offering than before. *Verona* root also is not over plentiful. *Florentine*, dark to fine pale selected, 80s. to 90s.; *Veronese*, 48s. to 68s. per cwt., f.o.b. Leghorn.

**POTASH SALTS.**—*Chlorate* flat, at 8½d. per lb. for immediate delivery, 8½d. for May, and 8½d. per lb. for June. Delivery over the second half of the year may be had at 7½d. per lb. *Permanganate* firm, with good demand at the recent quotations. *Bichromate* is offering at 4½d. per lb. net. *Yellow Prussiate* at 10½d. per lb. for English, and 10½d. per lb. for foreign.

**QUASSIA WOOD.**—There have been heavy arrivals by the *Carib* and the *Elmfield* from Jamaica this week.

**QUICKSILVER.**—The importers hold firmly at 6l. 10s. per cwt., while second-hand holders are not inclined to accept less than 6l. 8s. 6d. to 6l. 9s. per bottle.

**QUILLAIA.**—The last sales reported from Liverpool were at the rate of 17l. 17s. 6d. to 18l. 10s. per ton.

**QUININE** has remained active. On Thursday last further sales, aggregating about 50,000 oz. second-hand German bulk quinine (B & S and Brunswick), were reported on the spot at 9½d. per oz. Recent occurrences seem to bear out the view (in the opinion of the *Oil, Paint, and Drug Reporter*) that a quinine-combination has been formed. Our contemporary says:—"The foreign makers show a disposition to discourage the making of long contracts for forward delivery, whereas not so very long ago there was a race between them to secure contracts for deliveries running over six or even twelve months. It is quite possible that this competition had for its motive the desire on the part of some of the larger foreign houses to force an amalgamation of the business of Europe, if not of the world. This idea seems to have gained headway during the last few months, and as one of the means to the desired end it was sought to prevent sales for forward delivery except on terms that would discourage such purchases. The result is shown in the fact that outside holders, having no incentive to increase their supplies, have, under the exceptionally large demands of consumption in the past three or four months, gradually disposed of what they had on hand, with the result that the market is now practically in the hands of the manufacturers. The foreign makers evidently saw no chance of a permanent improvement in quinine without the assistance of the American makers, so they have made such overtures to the latter as to ensure their co-operation. The fact that the advance in quinine took place on the eve of two large bark-auctions, neither of which showed an advance in spite of the current belief that the manufacturers were in need of stock, confirms the opinion that the manufacturers have determined to work in concert." To-day another 47,000 oz. second-hand German bulk were sold (for export to the States, it is said) at 9½d. per oz. There are now further buyers, but apparently no sellers, at that price.



**SENNA.**—*Tinnerelly* leaves continue to arrive in moderate consignments, notwithstanding that the ordinary duration of the season is long past. *Alexandrian* leaves are pressing heavily upon the market.

**SHELLAC.**—The holidays have greatly interfered with business in this article. In spite of the fact that our stock on March 29 was only 26,662 cases, against 41,030 cases on March 31, 1892, the market is weaker both on the spot and for arrival. At the reopening of the markets shellac showed a continued inclination to droop, 99s. per cwt. being accepted for 100 cases TN orange for August delivery, and it closes about 1s. 6d. lower, with sales of August at 97s. 6d., and of May at 96s. 6d. per cwt.

**SPERMACEET.**—North American refined spermaceti offers in Liverpool at 1s. 4d. per lb.; a parcel of 30 cases *Chilian* sold there at 1s. 2½d. to 1s. 3d. per lb. lately.

**STAR-ANISE**—Reports from China state that there is now in Hong-Kong a stock left of about 200 piculs. These will probably be used for Chinese consumption, bids of \$28½ per picul from European buyers having been refused. The London spot price is nominal at about 75s. per cwt.

**TEA.**—The market has opened steadily after the holidays, especially for Congou teas; and though there are no sales of any sort this week—either China, Indian, or Ceylon—there has been a fair business done privately. The figures of imports and deliveries for March show the very strong position of Congous, and point to the stock falling to a very low point indeed before it can be replenished by new teas; and a considerable business has been done in Monings under 7d., at ¾d. to 1¼d. per lb. advance. The figures for Indians and Ceylons are not so strong, and heavy Ceylon sales may result in easier rates ere long. Retailers, however, are probably lightly stocked at the present time, and would take readily enough leaf Ceylons and Indians at any reduction in price, so that there is not likely to be any heavy fall for the present.

**TURMERIC.**—The market remains dull; the nearest quotations being 27s. 6d. per cwt. for good *Madras*, and 24s. per cwt. for *Bengal* finger.

**VANILLA.**—Good qualities are scarce, although on the whole the market is dull at the recent decline in price. Our stock is now 531 tins, of which only 191 have not yet been offered at auction. In Mauritius the stock is said to be exhausted.

**WAX (BEES').**—*Madagascar* wax is scarce and firm, at 6l. to 6l. 10s. per cwt. for fair to good bright yellow.

### THE LIVERPOOL MARKET.

IN consequence of the Easter holidays business in general produce and the chemical markets have almost been at a standstill:—

**CANARY-SEED.**—More disposition is shown by holders to meet buyers' views, and 67s. 6d. has been taken for 50 bags good *Turkish* seed.

**LOGWOOD EXTRACT.**—Makers have advanced their price 3s. per cwt. in consequence of the rise in the value of logwood.

**OIL (CASTOR).**—There has been little or no demand, and buyers still ask 27½d. to 2¾d. for good seconds *Calcutta*, but the cessation of the cotton strike is expected to better business.

**POTASHES.**—*Montreal*, after declining to 27s. 6d., advanced suddenly to 29s., at which they now stand. *Pearl-ashes* still 44s. to 45s.

**WAX (BEES').**—The advance of the past two weeks is well maintained. Holders of African (Gambia) now ask 6l. 5s.

### THE NEW YORK MARKETS.

(From our Special Correspondent.)

NEW YORK, March 22.

THERE is a pronounced depression noticeable in trade that is attributed to the general financial stringency. The drug business, of course, shares in this, and the results are shown by a downward tendency on the part of several lines of drugs. *Opium*, however, is a noticeable exception, having stiffened up under the impetus of strong reports from Smyrna and London. Local dealers have been making a fight to control the cocoa-butter market, with the result of lowering the price. The agitation consequent upon the change of the rate at which the duty is to be assessed on *Cocaine* has subsided, and quotations now run at about \$5.50 in bulk. The *Bromides* have been advanced to 31c. and 32c. for *Potassium*, and 36c. for the *Sodium salt*. Six cases of Central American *Balsam copaiba* have sold at 33c. from first hands. *Canada balsam* is in very limited supply indeed, and as a new crop cannot be secured until late in the spring, the consumers who must have balsam will have to pay for it whatever the few holders agree on. An improvement is shown in the demand for *Cascara sagrada*, which is firm at 7½c. to 8c. Some 5 tons have changed hands during the week. *Tonquin beans* remain unchanged in about the same condition as at our last writing. *Bourbon Vanilla beans* have advanced to \$6.50 owing to short supplies and to the high price demanded for Mexican vanilla beans. *Oil of Peppermint* is firmly held by the country dealers, though no large lots are moving, and no especial inquiry is noted in the city. *Jalap* has arrived in considerable quantities, and an easier tendency is noted in the market in consequence. *Quinine* is rather firmer.

(Telegram from our Correspondent.)

NEW YORK, March 29.

THERE has been a fresh advance here in druggists' opium, and German bulk quinine is also dearer. *Huanoco* coca-leaves have declined in price and are now offering at 32c. per lb. for good quality. *Senega-root* is firm. A shipment has been made to London this week.

(Telegram from our Correspondent.)

NEW YORK, April 6.

OUR drug markets has been exceedingly quiet since my last message, and the general demand has given way considerably. *Damiana-leaves* have fallen in price, but *Senega-root* keeps very firm, and sales of good bright quality are reported at 54c. per lb.

### THE SMYRNA OPIUM MARKET.

(Telegram from our Correspondent.)

SMYRNA, Wednesday evening.

THE effervescence in the market announced in my telegram of March 29 has partly subsided, and rather more than half of the advance then announced has been lost. Since Friday last the sales here amount to 50 cases, and the market closes firmly at the basis of 11s. 7d. per lb., f.o.b., for fair usual kind of manufacturing opium, which is 2s. 8d. below the highest point reached this season.

DR. KOCH is reported to have prepared a new anti-tuberculous liquid of remarkable efficacy. It is given by inhalation, not by injection.

THE WEIGHT OF A MOLECULE OF HYDROGEN, as given by an eminent authority, is approximately 0.000,000,000,000,000,000,000,04 of a gramme; by multiplying this inconceivably small number by 55, the atomic weight of iron, we ascertain the weight of a molecule of iron—0.000,000,000,000,000,000,000,002,2 gramme. In the sulphocyanide test we are able to detect the presence of thirty-three ten-millionths of a gramme of iron; dividing this number by the weight of one molecule of iron, we find that this apparently delicate test is unable to indicate to our senses a less number of molecules than 1,500,000,000,000,000.





### Memoranda for Correspondents.

*In letters for publication correspondents are requested to express their views as concisely as possible.*

*Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.*

*The name and address of the writer should accompany all communications, with, if desired, a distinctive nom-de-plume.*

### Intending Visitors to Chicago, Please Note.

SIR,—Enclosed please find circular of the American Pharmaceutical Association, giving programme of the Association during the World's Fair, a copy of which has been mailed to every member. The principal object of my work as local secretary will be directed towards securing suitable accommodations for our entire membership. This will be no easy task by any means, and can be facilitated only by a prompt return of enclosed application.

Our meetings will be held during the month of August, when the influx to the World's Fair will be at its height, and the city crowded to its utmost capacity. Will you kindly call attention to these facts in your next issue, impressing on the minds of those contemplating a visit to the World's Fair and attendance at meetings of the Association that applicants who come first will be served first? As it will entail considerable labour, applications for rooms should be forwarded at as early a date as possible. We have opened offices at Rooms 1,111 and 1,113 Schiller Building, Nos. 103 to 109 Randolph Street, where pharmacists can obtain all necessary information relating to meetings of the Association and World's Fair matters.

I enclose, also, a circular of the Bureau of Public Comfort, which is under the control of the Directors of the World's Columbian Exposition, whose co-operation has been secured. This gives information in detail concerning our plan, which it might be well to explain to your readers, and greatly oblige

HENRY BIROTH, Local Sec.,

Chicago, March 21.

A.P.A. and Ills. Pharm. Assns.

### Hours of Labour in Shops.

SIR,—Allow me to say, in reference to the above, and the report of Sir John Lubbock's speech in your last issue, and not having any recollection of the "special circular" referred to, I, as a chemist and druggist, should certainly say "No" to the measure, as it partakes too much of the "Curfew-bell" style and period of legislation.

Yours faithfully,

NON-POLITICIAN. (7/40.)

### Creosote Pills.

SIR,—Having experienced some difficulty in making these firm, shapely, and small; it occurred to me that the absorbent property possessed by the infusorial earth known as kieselguhr might furnish a solution of this difficulty.

To the courtesy of Mr. Felix Berger, of Mark Lane, I am indebted for a sample of the finest quality procurable, white, calcinated, washed, and refined; and with this I proceeded to experiment.

Twenty-four grains were rubbed well in a mortar together with 12 grains of powdered white Castile soap; then 24 minims of Morson's creosote added and worked up.

The mass, without further addition, yielded the twenty-four pills marked A. It weighed 55 grains.

In the same way, but using curd soap instead of Castile, a batch was quickly and easily prepared. It seemed easier to remove this mass completely from the mortar, and it weighed 56 grains.

Used in the same proportions for pills containing one drop of croton oil in each, it answered admirably.

Regarded as supplying the insoluble backbone necessary

to the due construction of a pill, I think kieselguhr quite as unobjectionable as sawdust or scraped blotting paper, and its capacity for absorption is far superior.

Dover.

J. F. BROWN.

### Mr. Johnstone and the Institute of Chemistry.

SIR,—The attention of the Council of the Institute of Chemistry has been directed to the letter of Mr. Johnstone, which appeared in your issue of March 15. The facts are as follows:—

In 1891, the Council, under the powers conferred upon them by Royal Charter, excluded Mr. Johnstone from membership of the Institute on the ground of professional misconduct. He called in question the right of the Council so to do, and commenced legal proceedings to enforce his views. Previously to the trial of the action which he had brought—viz., in May, 1892—he, under the advice of his counsel, admitted that the Council of the Institute had acted in good faith and in accordance with the rules of the Institute, and he accordingly, with the consent of the Council, withdrew the record.

He also undertook not to use the title of "Fellow" or "Member of the Institute" for the future, and the Council did not press for payment of the costs which had been incurred by them.

Under the by-laws of the Institute, to which Mr. Johnstone on his admission as a member subscribed, he should, upon his exclusion from membership, have delivered to the Council what he describes as "a worthless bit of paper."

Mr. Johnstone has persistently declined to do so, and inasmuch as such certificate was current for one year only, and expired, in default of renewal, on December 31, 1891, the Council have not hitherto thought it necessary to take steps to enforce the performance of an obligation which Mr. Johnstone is bound to fulfil.

I am, yours truly,

G. H. ROBERTSON,

9 Adelphi Terrace, Strand, W.C.

Registrar.

### Popular Opinion v. Statute Law.

SIR,—I was greatly surprised to read in last week's issue that Mr. Cross, at Manchester, said that had the case of grocers selling poisonous medicines been taken before public opinion was ripe for it, a different result would have arisen.

If this be so, the decision does not rest on the law of the land, but on the most fickle thing that exists. This is such gross contempt of court that Mr. Cross should be advised to withdraw the statement.

March 31.

Truly yours,

H. H. (7/21.)

### Sale of Poisons by Unqualified Vendors.

SIR,—Early on a recent evening my attention was drawn to a crowd in the street, following three men. One had his head hanging down, and was supported by the other two, who were dragging him along towards my shop.

"Aye, guv'nor! 'Ere's a bloke gone and took something. Look sharp!"

"What was it?" I asked.

"I don't know, guv'nor. He's took some stuff out of a cup, an' he fell like a stwoan, and we geddered him up straight."

"Let me smell his breath. Ah, that's it. Our old enemy carbolic acid again. Fred," I called to the apprentice. "Olive oil—quick! Half-pint measure glass. Eight ounces. Now, hold up his head! There." And I poured down the man's throat the olive oil. He gasped, opened his eyes, coughed, and muttered, "Oh!"

A pale-faced, terror-stricken young lady now rushed into the shop calling out, "Oh, give him something! Do give him something! He has drunk something out of a cup! I am his wife. Oh, dear! Oh, dear!"

"Where does he live?" I inquired.

"No. 50 Blank Street," an elderly lady answered, who happily followed the young woman into the shop, and was a little more composed.

"Well, take him home at once!" I said to the men, who set off with their burden. I put up an emetic and gave it to the wife, telling her to give it in tepid water as soon as



she got her husband home. Then I sent Fred for a doctor, who fortunately was able to attend at once.

When I called to make inquiries shortly after, I was informed that the doctor had been, and that the poor fellow was out of danger. The emetic had acted splendidly, bringing up the oil and apparently all the carbolic acid before absorption had taken place, as, beyond a soreness in the throat and chest, with the skin taken off his lips and mouth, he said he felt "all right."

"And where did you get the carbolic acid?" I naturally inquired.

"Oh, he got two pennyworth at the oilshop in a cup and drank it in the street."

I had got the fragments of the cup. No label, of course, "poison" or anything. Surely it is time that some restriction should be put upon the indiscriminate sale of this "poison" by oilmen and other unqualified people. No chemist, I hope, would supply carbolic acid in a cup, and without a label.

It has fallen to my lot, twice this year—which is but young—to step in between Death and his victims. The first time was a case of two children who had eaten "Pharaoh's serpents," supplied by a dealer in knickknacks. They recovered, I am glad to say. The second was the case I have just related.

Yours, &c.,

65 Queen's Road, Peckham.

ISAAC HARTNESS.

#### Inspectors Wanted.

SIR,—In your issue of March 11, I notice a letter from "Subscriber," suggesting the appointment of inspectors all over the country to enforce the law as regards the Pharmacy Act. As it is imperative that this should be done, and as no one has replied to "Subscriber's" letter, surely a little correspondence through your valuable medium would not be uncalled for, but might help the Society to an early and final decision on the subject.

I might add that in half an hour's walk I could get a dozen cases.

Yours faithfully,

Cornholme, near Todmorden.

POISON. (10 53.)

#### Prescribing for the Earl of Beaconsfield.

SIR,—“Primrose Day” is at hand, and the following incident may interest Conservative readers.

I am probably the only chemist who enjoys the proud distinction of having prescribed for the late Earl of Beaconsfield.

I was in charge of an old-fashioned business in an old-fashioned town in Buckinghamshire, only a mile or two from Hughenden.

One summer afternoon Lord Rowton (then Mr. Montagu Corry) came clattering into the square on a magnificent chestnut horse. He dismounted and gave the reins to a small boy, at the same time cautioning him that the horse had already eaten several small boys in his time who had rashly tickled his nose.

Mr. Corry then entered our Old-world pharmacy, and, after making a substantial purchase of tooth-brushes, &c., asked if I could give him a lotion or something to allay the intolerable itching caused by the bites of May-flies and other insects, as the Earl's noble legs were covered with them, contracted during his morning walks in the lush herbage of Hughenden Park.

I rapidly improvised an 8-oz. carbolic and rose-water lotion; Mr. Corry carelessly popped it into an outside pocket, paid for everything, then with his irresistible smile wished me “Good-day” and rode off. (At that time he undoubtedly divided votes with Mr. Cyril Flower as the handsomest man in England.)

E. D. (11, 32.)

#### “Alarming Sacrifice.”

SIR,—I am indebted to your journal for an unexpected and, I confess, unwelcome advertisement.

Under the heading “Alarming Sacrifice,” on page 453 of your last issue, you therein call attention to what you venture to term “a unique circular,” which, you say, “was circulated last week among the good people of Newcastle-on-Tyne,” &c.

In reply to this portion of your paragraph, permit me to say that, however unique the circular, it was not circulated last week (nor has it yet been circulated) among the good people of Newcastle-on-Tyne, a mis-statement on your part I will thank you to at once correct.

In the event of the good Novocastrians having to submit to this ordeal shortly, as is possible, I shall have pleasure in duly informing you!

[The circular announces that the sale will commence on Monday, March 20, 1893. It was reasonable to infer that it would be circulated a little before that date.—ED. C. & D.]

You further criticise my unfortunate circular by stating that “all through the sacrifice of prices strikes us as less serious than the sacrifice of dignity, which, from a commercial point of view even, seems to us to be worth maintaining.”

This extraordinary statement at first sight appears severe and crushing, but on further examination seems somewhat involved, and rather implies, I think, that this variety of dignity to which the virtuous C. & D. is directing attention is not an excessively plenteous product in the Editorial laboratory, but rather a “tender plant,” of recent growth and excessively frail. At any rate, such was the writer's opinion after reading carefully your remarks—an opinion shared by several business acquaintances included among the good people of this city.

Some of these friends even venture to remark that your criticism is unworthy of your reputation, and that the sooner you blend a little commercial modesty and commercial charity with the dignity you speak of the better for yourself and all concerned.

One of my friends gives a possible and certainly plausible reason for this “Alarming-sacrifice” paragraph by suggesting it is the outcome of a practical joke, played on the usually wide-awake Editor in order to suitably commemorate “April 1,” the day and date of its publication.

He suggests that the terrible circular was received by a “sub” or “sub-sub” (in the Editor's absence, of course), who determined to distinguish himself and journal simultaneously by thus criticising the alarming-unique “fools-cap” circular in the pages of your journal under date April 1, 1893.

I give you this ingenious explanation for what it be worth, at the same time suggesting (if it be correct) you request your junior, for my sake and the reputation you profess to enjoy for “commercial dignity and fairness,” to exercise his ability in a more agreeable manner the next occasion the C. & D. is published on the first day of the month of April.

If your “sub” be unwilling to promise this “for my sake,” then I would appeal to him on behalf of the good people of Newcastle-on-Tyne, whose welfare evidently he has so much at heart.

Faithfully yours,

JOSEPH ROBERTS.

Alliance House, Cullercoats-by-the-Sea, April 4.

[We do not grudge Mr. Roberts his revenge, though we think when anyone wants to hit back he should limit himself to about the same space as the attack occupied, especially when, as in this instance, there is no pretence of making a serious reply to criticism.]

#### LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in “Pharmacy and Poison Laws of the United Kingdom,” Alpe's “Handy-book of Medicine-stamp Duty,” and THE CHEMISTS' AND DRUGGISTS' DIARY, page 152 et seq.

10/13. E. W.—Registration of companies.—See THE CHEMISTS' AND DRUGGISTS' DIARY, 1893, page 171. You must excuse us if we decline to advise you as to how you can best evade the Pharmacy Act, which is what we understand you wish to do. If (as stated last week by a correspondent) “canine specialist” is regarded as an infringement of the Veterinary Surgeons Act, we should think “canine expert” would be so also, though we do not agree that it should be.



10 21. *R. J. W.*—You can get specifications of patents (if in print) from the office for the sale of patents, Cursitor Street, Chancery Lane, price 8d. An 8d. post-card is sold at post-offices, which, being filled up, suffices to order one specification.

9,54. *Buccabunga*.—We do not see any legal objection to the label provided the statement made therein is correct.

10 12. *Calumb*.—Having given your landlord due notice to quit his premises, you can only withdraw such notice with his consent.

262/68. *Leghorn*.—"Real and personal property of every description may be taken, acquired, held, and disposed of by an alien in the same manner in all respects as by a natural-born English subject" (Naturalisation Act, 1870, 33 and 34 Vict. c. 14, sec. 2). The possession of such property does not qualify an alien for offices or franchises to which he is otherwise disentitled.

11/14. *Epsilon*.—We should think you would not be able to enforce your claim. The decision would depend upon evidence as to the conditions agreed upon.

11/34. *Zingib*.—You are evidently risking penalties by making and selling your ginger-wine essence. Unless you have a compounder's licence and a spirit-dealer's licence you may not make nor sell such an essence containing more than 3 per cent. of proof spirit. See Parliamentary News, page 408, THE CHEMIST AND DRUGGIST, March 25.

#### MISCELLANEOUS INQUIRIES.

*The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.*

*Back numbers, containing formulae, educational or other specific information can be obtained from the Publisher.*

7/19. *Dandelion*.—Dandelion Coffee is, according to the books, dandelion-root sliced, roasted, and ground, but we should think that the article made by your firm is not that.

263.6. *Nemo*.—The best colours to add to spirit-varnish for the imitation of wood-colours, are the spirit-soluble aniline dyes.

6/54. *Nosegay*.—Cherry-blossom Perfume.—The following is a formula which we published a few years ago:—

Essence of peach-blossom .. ..	3xx.
Extrait of violet .. ..	3iiij.
Essence of mirbane (1 in 10) .. ..	3iiij.

Mix.

The essence of peach blossom is made according to the following formula:—

Extrait of orange-flowers .. ..	3viiij.
" jasmine .. ..	3ij.
Essence of bitter almonds (1 in 12) .. ..	3v.
" Peruvian balsam .. ..	3iiij.
Oil of lemon .. ..	3iiij.
Rectified spirit to .. ..	3xx.

Mix.

7/42. *Remo*.—The only further assistance which we could give you in making granular preparations would be to show you the operation, but it is obvious that we cannot undertake work of that nature. The description in our issue of February 11 is a fair general account of the process as we have carried it out, and as it is carried out by many manufacturers.

8/30. *Sperans*.—(1) You will find the principles involved in the isolation of alkaloids described in Attfield's "Chemistry." There is no English book, except Greenish's translation of Dragendorff's "Plant Analysis," which deals with active principles generally, and none specially devoted to the manufacture of active principles. (2) The man-eating tree is a myth, surely, though we have heard of it.

#### INFORMATION SUPPLIED.

Oil of Peter.—I am rather late in the day sending you a recipe for "Ol. Petre," or, as we used to call it, "Oil of Peter." Forty years ago, in Lincolnshire, it was in constant demand. We made it as under:—

Ol. succin. com... ..	3iv.
" tereb. .. ..	3iv.
" lini .. ..	3iv.
Petrol. Ebds. .. ..	3iiij.

M.

I may add that this formula dates back more than a hundred years.

March 30.

B. HEALD (Cornwall.)

Mole and Rat Pills.—In answer to query 7/10, I believe I can give the desired information. A German last summer was very much troubled with rats, and he told me that he always procured in his home some arsenic pills, which always had the effect of destroying them. I made them up 5-gr. size, containing  $\frac{1}{2}$  gr. ac. arseniosi:—

Ac. arsen... ..	gr. $\frac{1}{2}$
Gum. acac. .. ..	gr. $\frac{1}{2}$
Amyli .. ..	gr. ij.
Sacch. et syr. .. ..	gr. ij.

I found afterwards that strychnine had a better effect.

C. B. G. (964.)

#### INFORMATION WANTED.

*The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—*

9/60. Ox-gall soap: where obtainable?

9/29. Water-tap with tapering grooved nozzle to fit different sized bottles. Must be under perfect control. Who makes?

6/70. D'Arsonval's sterilising and filtering apparatus: description of.

#### Next Week.

*Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.*

MONDAY, April 10.—*Society of Chemical Industry, Chemical Society's Rooms, Burlington House*, at 8 P.M. Election of officers and five members to the local committee. Mr. A. E. Cowper on "The Application of Hot Blast Stones to Chemical Industries." Mr. R. Bowman on "The Manufacture of Alkali and Other Products as Carried on in Russia." Mr. E. A. Smith on "The Presence and Estimation of Gold and Silver in Antimony and in Bismuth."

WEDNESDAY, April 12.—*Pharmaceutical Society, 17 Bloomsbury Square W.C.*, at 8 P.M. Professor Green on "Eccentricities in Plant Nutrition" (illustrated by the oxyhydrogen lantern).

THURSDAY, April 13.—*Glasgow Pharmaceutical Association*, at 12 noon. Annual meeting and conference of chemists and druggists.

THURSDAY, April 13.—*Liverpool Pharmaceutical Students' Association*, at 8.30 P.M. Smoking-concert.

THURSDAY, April 13.—*Chemists' Assistants' Association*, 103 Great Russell Street, W.C., at 9 P.M. Mr. W. Chattaway on "The Study of Chemistry as a Training for the Mind."



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" " (Vestal)	...	...	4/6
" " Foam (Toilet)	...	...	1/ and 1/6
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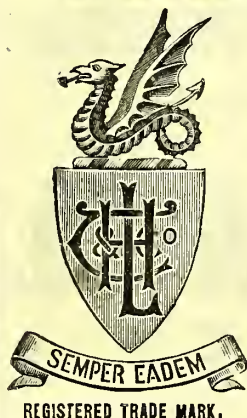
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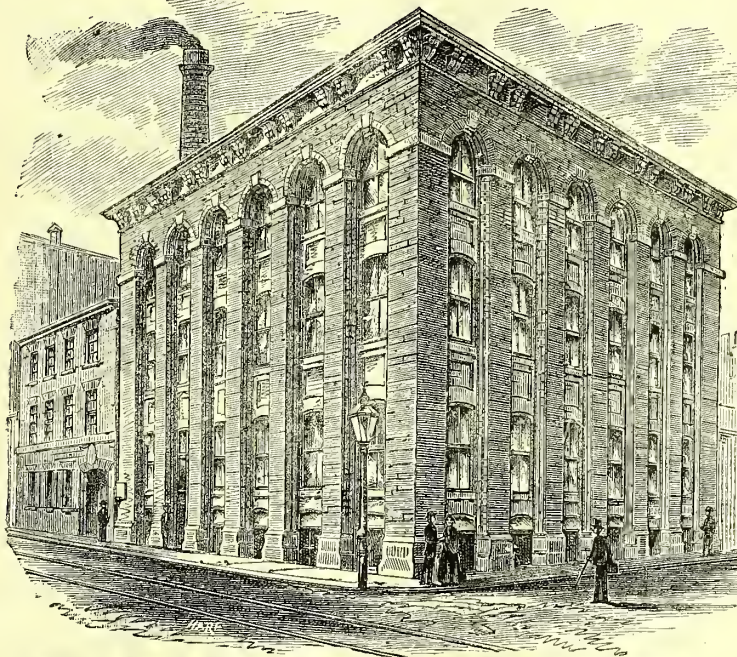
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In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, anti-dyspeptic, and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

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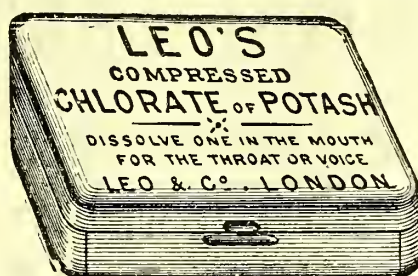
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Fluid pepsine of extraordinary activity—tasteless, odourless, attractive to patients, and reasonable in price. Every teaspoonful when tested by the official B.P. process is guaranteed to effect the solution of 1,000 grains of albumen. Peptic power is the only test of value. Most of the foetid and repulsive dry Pepsines have proved worthless. In 4 oz. bottles, 2s. 6d. each; and larger sizes for dispensing at a cheaper rate.

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N.B.—Peps. Liq. c. Bismutho Co. contains, in addition, one gr. soluble Euonymin in each drachm.

### SCHACHT'S PEPSINA LIQUIDA C. EUONYMIN.

Each drachm contains one grain of soluble Euonymin. Dose: One drachm. For dispensing  $\frac{1}{2}$  lb. and 1 lb. bottles.

### SCHACHT'S LIQ. PODOPHYLLI C. BISMUTHO.

A perfect solution of Podophyllin, containing  $\frac{1}{2}$  gr. in each drachm.

### SCHACHT'S LIQUOR CASCARÆ DULCIS.

A pleasant and active form of Cascara Sagrada. Dose: One to three teaspoonfuls diluted. In 4 oz.,  $\frac{1}{2}$  lb. and 1 lb. bottles.

### SCHACHT'S INFALLIBLE RENNET.

An entirely new Essence, perfectly reliable, for the coagulation of Milk, and the production of Junkets and Curds and Whey. It is a preparation of the most wholesome nature, that contains no salt, and has no special taste, smell, or colour. In large bottles at 1s. of any Chemists. This Essence keeps well in any climate.

The above Preparations can be procured from Messrs. Barclay & Sons, W. Edwards & Son, and the Wholesale Druggist; or direct by post from

# GILES, SCHACHT & Co., Clifton, Bristol.





# TREFOIL BRAND

## CAMPHOR.



Further Consignment just received from Japan of

# COMPRESSED CAMPHOR,

In Half-ounce and One-ounce Blocks.

EACH CASE CONTAINS 200 ONE-LB. PACKETS.

This Camphor is much cheaper than the European article, and is equal in quality to the best English brands. H. HELBIG, F.C.S., and Dr. F. W. PASSMORE, in a report on this Camphor, say:—"The result of our investigation shows that the preparation is a perfectly pure Camphor, being, in fact, identical with the pure chemical compound,  $C_{10}H_{16}O$ ."

Further consignments are on the way, and regular supplies of blocks (3 to the ounce,  $\frac{1}{2}$  oz., 1 oz., and 2 oz.) will shortly be obtainable, as well as **FLOWERS OF CAMPHOR** for Manufacturing Purposes. Smaller quantities than a case can be obtained of the Wholesale Houses. Messrs. EVANS, LESCHER & WEBB, of Bartholomew Close, have Stock.

FOR FURTHER PARTICULARS APPLY TO

JAMES MORRISON & CO., London and Continental Agents, 4 FENCHURCH STREET, E.C.

## BORAX & CAMPHOR SOAP.

(DODD'S PATENT.)

DODD BROS. desire to draw the attention of the trade to their Borax and Camphor Soap, the demand for which is being rapidly created, and it finds a ready sale wherever introduced. It is specially adapted for washing the Hair, and is invaluable for the Skin, Bath, and Toilet. It is packed in handsome carton cases, and retails at 6d. One-dozen box makes an attractive show.

Artistic Showcards and Handbills on application to any Wholesale House, or to DODD BROS., Stamford Hill, London, N.

SOLD BY THE FOLLOWING WHOLESALE AGENTS:—

London—Barclay & Sons, W. Edwards & Son, R. Hovenden & Sons, Lynch & Co., S. Maw, Son & Thompson, May, Roberts & Co., F. Newbery & Sons, J. Sanger & Sons, Shirley Bros., W. Sutton & Co.  
Belfast—Clark & Co., McMullan & Co.  
Birmingham—Southall Bros. & Barclay

Bristol—Ferris & Co., A. & J. Warren.  
Cork—Kiloh & Co. (Limited).  
Dublin—Hayes & Co., McMaster, Hodgson & Co.  
Edinburgh—Duncan, Flockhart & Co., Raimes, Clark & Co.  
Glasgow—Apothecaries' Co.  
Leeds—Goodall, Backhouse & Co.

Liverpool—Evans, Sons & Co., John Thompson.  
Manchester—Oldfield, Pattinson & Co., J. Woolley, Sons & Co.  
Norwich—Smith & Sons.  
Nottingham—J. H. Haywood & Sons.  
York—Bleasdale & Co., Folkard & Co., Raimes & Co.

HAMBRO SPECKLED



TRADE MARK  
REGISTERED.

All Orders by Post receive immediate attention.

## LEECHES!

Warranted Healthy.  
Wholesale and for Exportation  
Direct from Marshes.

FITCH & NOTTINGHAM,

LEECH BREEDERS,  
4 CANONBURY SQUARE, LONDON, W.

## HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,

78 New Oxford St. (late 533 Oxford St.), London,

And sold at 1s. 1½d., 2s. 9d., 4s. 6½d., 11s., 22s., and 33s. each Box or Pot  
Chemists and Druggists selling "Holloway's Pills and Ointment" can  
on application to the above address, or to the Wholesale House with whom  
they deal, be supplied free of charge with Handbills and Posters with their  
name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.



# CAUTION!

## SPECIAL NOTICE TO THE TRADE

# LION OINTMENT & PILLS.

### DEACON v. BURGESS.

In the High Court of Justice, Chancery Division, on Saturday, December 17th, Mr. Justice Kekewich, in delivering judgment, said "that it will be sufficient, I think, and I am sure quite safe now to say that the plaintiff (Mr. H. J. Deacon), who certainly has not proved his knowledge of the genuineness, but who has clearly indicated his ignorance, and who is attempting to sell as genuine medicine that of which he is really ignorant." N.B.—A full report of the Judgment appeared in THE CHEMIST AND DRUGGIST, December 24 last.

CHEMISTS ARE PARTICULARLY REQUESTED TO ORDER

## E. BURGESS, JUNR.'S, LION OINTMENT AND PILLS,

And to see that the Label bears Address,

### 59 GRAY'S INN ROAD, W.C.

As these are the ONLY GENUINE Goods, and this fact will be EXTENSIVELY ADVERTISED THROUGHOUT THE KINGDOM.

The Trade is respectfully requested to refer to the issues of "THE CHEMIST AND DRUGGIST" of December 10 and 17, and to read the Statutory Declaration made by E. Burgess, Junr., before the Lord Mayor of London. E. B., Junr., is the only person living with the knowledge of method of manufacture of these Remedies, and all statements to the contrary are untrue.

ESTABLISHED  
1772.

## HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,

And is sold in bottles, authenticated by a Government Stamp bearing their Name. Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d. or 2s. 9d.

NEW YORK—MESSRS. W. H. SCHIEFFELIN & Co., William Street. PARIS—MESSRS. ROBERTS & Co., 5 Rue de la Paix.

## CLAY'S PEARL-COATED TASTELESS PILLS.

Special Quotations to buyers of 10-gross lots. Cash with order, tins free, carriage paid. All our Pills are most carefully prepared from the purest and most active ingredients, and are warranted true to description.

### PILLS OF THE BRITISH PHARMACOPEIA.

PILES OF THE BRITISH EMPIRE				PER GROSS.				PER GROSS.				PER GROSS.			
Pil. Aloes Barb.	Per gross.	-/6	5 Pil. Asafetidae Co.	Per gross.	-/6	8 Pil. Ferri. Carb.	Per gross.	-/6							
" " et Asafetidae	-/6	6	" Coloc. Co.	-/6	10 1/2	9 " Hydrarg.	-/6								
" " et Ferri	-/6	7	" Coloc. et Hyos.	1/1	11	" Rhei Co.	-/9								

NON-OFFICIAL FORMULA															
Per gross.				Per gross.				Per gross.				Per 1,000			
8 ANTIBILIOUS				115 As 114, with 1/2 gr. Calomel	-/6	303 DANDELION, CHAMOMILE, and RHUBARB		140 LITTLE LIVER							
Ext. Coloc. Co., 1/2 gr.	-1/2			116 " 1/2 gr. " "	-/6	Ext. Tarax., 1 gr.	-/8	Aloin, 1-10 gr.	-/8						
" Hyoscy., 1/2 gr.	-1/2			117 " 1 gr. " "	-/6	" Anthem., 1 gr.	-/8	Jalapin, 1-10 gr.	-/8						
Pil. Hydrarg., 1/2 gr.	-1/2			135 CASTOR OIL	-/6	P. Rhei, 1 gr.	-/8	Podophyllin, 1-5 gr.	-1/8						
Pulv. Ipecac., 1/2 gr.	-1/2			P. Rhei, 1/2 gr.	-/6	" Aloes Barb., 1/2 gr.	-/8	Ext. Hyoscy., 1-20 gr.	-/8						
ANTIBILIOUS with PODO-PHYLLIN	-1/1			Pot. Sulph., 1/2 gr.	-/6	" Zingib., 1 gr.	-/8	" Nucis Vomicae, 1-20 gr.	-/8						
(VEGETABLE ANTIBILIOUS).	-1/1			P. Saponis, 1/2 gr.	-/6	Ol. Carui	-/8	Ol. Resin. Capsici, 1-20 gr.	-/8						
Podophyllin, 1/2 gr.	-1/1			Ol. Ricini, 1/2 gr.	-/6	304 DINNER and DIGESTIVE									
Ext. Rhei Co., 3 gr.	-1/1			" Crotonis, 1-16 gr.	-/6	Aloes Socot. Ext., 1 gr.	-/8	305 NEURALGIA and TIC							
Ext. Hyoscy., 1/2 gr.	-1/1			146 COCHLE CO., 4 and 5 gr.	-/6	Pil. Rhei Co., 1 r.	-/8	Quinins Sulph.	-/8						
" Tarax., 1/2 gr.	-1/1			P. Aloes Cape, 2 gr.	-/6	Ext. Gentian., 2 gr.	-/8	Ferri Sulph. aa 1/2 gr.	-/8						
103 ANTIBILIOUS	-1/2			" Gambogiae, 1 gr.	-/6	179A FEMALE	-/8	Ext. Belladon., 1/2 gr.	-1/8						
Ext. Coloc. Co., 2 1/2 gr.	-1/2			" Jalape., 1 gr.	-/6	Aloes Barb., 1/2 gr.	-/8	" Colchici Acet., 1/2 gr.	-/8						
" Hyoscy., 1/2 gr.	-1/2			" Saponis, 1/2 gr.	-/6	Ferri Sulph. Exsic., 1/2 gr.	-/8	" Hyoscy.	-/8						
Pil. Hydrarg., 1/2 gr.	-1/2			Ol. Zingib., 1 gr.	-/6	Ext. Hellebore, 1/2 gr.	-1/8	Camphora, aa 1 gr.	-/8						
Hyd. Subchlor., 1/2 gr.	-1/2			Ol. Caryoph., 1/2 m.	-/6	P. Myrrh., 1/2 gr.	-1/8	58 STEEL and PENNYROYAL	-1/8						
14 APERIENT	-1/6			168A COUGH	-1/8	" Canellae, 1/2 gr.	-1/8	Pil. Aloes et Ferri, 4 gr.	-1/8						
Pulv. Gambogiae, 1/2 gr.	-1/6			P. Ipecac. Co., 1/2 gr.	-1/8	" Zingib., 1/2 gr.	-1/8	Ol. Pulegii, 1/2 gr.	-1/8						
" Aloes Barb., 1/2 gr.	-1/6			" Gum. Ammoniac., 1/2 gr.	-1/8	189A GOUT and RHEUMATIC	-1/8	145 TONIC	-1/8						
" Colocynth., 1 gr.	-1/6			Sapo. Hyspan., 1/2 gr.	-1/8	Ext. Colchici, 1/2 gr.	-1/9	Cinchonidine Sulph., 1 gr.	-1/8						
" Jalape., 1 gr.	-1/6			302 DANDELION and RHUBARB.	-1/8	Ammon. Carb., 1/2 gr.	-1/9	P. Aloes Socot., 1 gr.	-1/8						
" Saponis, 1/2 gr.	-1/6			Ext. Tarax.	-1/8	Guaiaic Resin, 4 gr.	-1/9	Ferri Sulph. Exsic., 1/2 gr.	-1/8						
" Gingerine, 1/2 gr.	-1/6			Pil. Rhei Co., aa gr. ii.	-1/8	P. Opil., 1/2 gr.	-1/9	Pulv. Nucis Vomicae, 1 gr.	-1/8						
BLAUD'S	-1/6														

CLAY, DOD & CO., Wholesale Druggists, 52 ST. ANNE STREET, LIVERPOOL.



# TO THE WEED KILLER TRADE.

For destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, Meadows, &c.

We desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade.

1. The "Acme" Weed Killer is used in the gardens and on the estates of the Gentry everywhere, and by Corporations and Burial Boards in Parks, Cemeteries, &c.

2. Our Retail Prices are such as will induce a ready sale, and we make no charge for 1 and 2 gallon tins.

3. We pay carriage on twelve gals. in 1 and 2-gall. tins, and on 10 galls. in drums and upwards, to any Station or Port in Great Britain.

4. Drums and casks are charged at cost price. Full price allowed when returned.

Trade and Export Terms on application. The most Liberal Terms to the Trade.

RETAIL PRICES.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drums, 1/6 per gallon; 10, 15, and 20 gallons, 1/4 per gallon; in 40-gallon casks, 1/3 per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others.

THE "ACME" WEED KILLER, FOR CHEAPNESS & EFFICIENCY, HAS WON FOR ITSELF A NAME FAR ABOVE ALL OTHERS.

SOLE PROPRIETORS AND MANUFACTURERS—

THE ACME CHEMICAL CO., LIM., Tunbridge, Kent; & Carlton St., Bolton, Lancashire.



CHEAPER AND EQUAL TO VASELINE, AND PRONOUNCED BY THE MEDICAL PROFESSION TO BE UNSURPASSED.

Tins of all sizes, from 1 to 10 lbs.; Iron or Wood Kegs, 1/2, 1, and 1 cwt.; Barrels about 3 cwt., &c. Samples and prices on application, stating packages and quantities required, to the Manufacturers—

**SNOWDON, SONS & CO., MILLWALL, LONDON, E.**

BEWARE OF COPYISTS.

Established 1840.

AWARDED OVER 40 PRIZE MEDALS.

THREE  
GREAT

**Day & Sons,**  
**Grewe.** ANIMAL  
MEDICINES

THE "PURIFIED"  
**DRIFFIELD OILS,**

Commonly called "Day's Oils,"  
"Day's Black Oils."

For Wounds of all kinds in all animals.  
For Saddle & Stake Wounds & Cracked Heels.  
For Sore Teats and Swollen Udders in Cows.  
For Anointing in bad Lambing and Calving.

Price 2s. 6d. and 6s. per Bottle.



BEWARE OF COPYISTS.

THE RED DRINK  
OR  
COW DRENCH.

Cures Fever and Costiveness in Cattle.  
Cleanses and Cools the Blood and System.  
For Red Water, Indigestion, and Yellows.  
Cures Bad Cleansing & prevents Milk Fever.  
Price 12s. per dozen Packets.

The "EWE DRENCH" acts as  
above for Sheep. 3s. 6d. per doz.



What's good for  
BODILY PAIN?  
**DAY'S OIL OF THE NIGHT**

The People's Embracative Palm for Sprains, Muscular Weakness, Rheumatism, Lumbago, Cramp, Sore Throat from Cold, Sciatica, &c., and all Aches, Pains, & Soreness.

Send for "Day's Oil of the Night" terms, framed to prevent CUTTING.

Chemists can have a Single Bottle direct. Price 1/1 1/2 & 2/9 per Bot.

**DAY & SONS, CREWE, CHESHIRE.**





# PETROLEUM JELLY.

**PARAFFINUM MOLLE, B.P.**

**(PIONEER BRAND) Registered Trade Mark.**

**Equal to and Cheaper than VASELINE.**

FOR MEDICAL AND PHARMACEUTICAL PURPOSES.

White, Yellow, Veterinary, and Waterproof. All kinds put up in 1-lb., 5-lb., 7-lb., 14-lb., 28-lb., and 56-lb. Patent Tins, and in 300-lb. Barrels.

Pure Castor Oil, Cod Liver Oil, White Mineral Oil, Best Eating Olive Oil, Pale and Crude Carbolic Acid, Carbolic Powders, Sheep Dip, Benzine 50 per cent. and 90 per cent., Crude and Rectified Spirits of Tar, Stockholm Tar, Camphor Ice, Carbon Candles.

**PATENT**

## CARBOLIZED PEAT,

**THE NEW AND POPULAR DISINFECTING POWDER.**

SEND FOR SAMPLES AND PRICES TO

**GRINDLEY & CO., Lim., POPLAR, LONDON, E.**  
(ESTABLISHED 1868.)

## DAY, SON & HEWITT'S

**NEVER FAILING HORSE, CATTLE & SHEEP MEDICINES.**

### THE CHEMICAL EXTRACT.

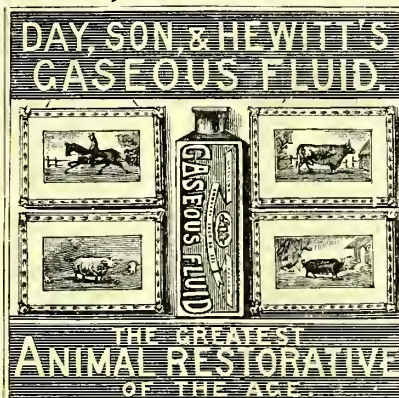
For Kicks, Cuts, Bruises, Sore Withers. Swellings Strains of Ligaments and Tendons, Saddle Galls, &c. It rapidly relieves Straining and Painful after Calving and Lambing, and is the remedy for Swollen Udders and Sore Teats.

Price 2s. 6d., 3s. 6d., and 7s. per Bottle.

### THE CASEODYNE,

Used as Laudanum for parturition in Mares, Cows, and Ewes, when there is great pain exhibited with feverish symptoms. Highly beneficial for Inflammatory Colic or Enteritis, and for severe forms of Diarrhoea.

Price 3s. 6d. per Large Bottle.



For Fret, Colic, or Gripes in Horses, Hoven or Blown Sheep, and General Debility in Stock; of exceptional value for Colds, Chills, Scour, Diarrhoea, and weakly Lambs and Calves.

Price 1s. 9d. per Bottle, 20s. per doz.

### THE RED DRENCH.

For Colds, Indigestion, Costiveness, Yellows, Surfeits, Loss of Cud, Pleurisy, Hide-bound, Red Water, &c. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of Calving or Lambing.

Price: for Cows, 13s. per doz.; for Ewes, 3s. 6d. per doz.

### THE BRONCHOLINE.

For Husk or Hoose in Heifers, Calves, Sheep, and Lambs, also Tape-worms in Tegu. No parasite can exist in the windpipe or air-passages after the blood has been impregnated with this worm-destroying medicine.

Price 2s. 6d. per Bottle.

### THE ORIGINAL STOCK-BREEDER'S MEDICINE CHESTS,

For Horses, Cattle, and Sheep. Prices, £1 8s. 9d. and £2 16s. 6d.

### THE ORIGINAL HORSE-KEEPER'S MEDICINE CHESTS,

For all ailments in Horses. Prices, £1 10s. and £2 17s. 6d.

**ROYAL ANIMAL MEDICINE MANUFACTORY, 22 DORSET ST., LONDON, W.**

Liberal Discount to Foreign Buyers.

Trade Terms and full particulars on application.

Attractive Show-cards and Handbills sent with each order.



# THREE GOOD THINGS

Dr. Rooke's Golden Ointment



As a family salve is simply invaluable. Every careful housewife has it ready to hand in case of Cuts, Scalds, Burns, &c. Has achieved signal success in curing Scrofula and other Skin Diseases. In Pots at 1s. 1½d. and 2s. 9d. each of all Chemists, Stores, &c.

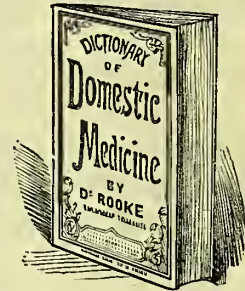
Dr. Rooke's Rheumatic Lixile



Conquers Rheumatism, whether acute or chronic, and makes it speedily yield. Invaluable for this distressing complaint in all its varied forms. For external application only.

Sold everywhere by Chemists, Patent Medicine Dealers, and Stores at 1s. 1½d. and 2s. 9d. per bottle.

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Dictionary of Domestic Medicine.



A valuable work, treating of some of the most prevalent diseases of human life, and showing their rational mode of treatment. Every household should possess a copy. Gratis, of all Chemists and Patent Medicine Dealers.

All Chemists, Patent Medicine Dealers, &c., should stock the above at once, as they will shortly be in great demand, resulting from the extensive advertising now going on. Price Lists on application.

Retailers wishing a supply of Handbills and other advertising literature should write direct to the Proprietors—

**DR. CHARLES ROOKE, LIM., SCARBOROUGH.**



CLARKE'S BLOOD MIXTURE is ENTIRELY FREE from any POISON or metallic impregnation, does not contain ANY INJURIOUS INGREDIENT, and is a good, safe, and useful medicine."

ALFRED SWAINE TAYLOR, M.D., F.R.S.,  
Lecturer on  
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Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.

CAUTION.—Immediate proceedings will be taken against all persons pirating the Trade Mark, "Blood Mixture" (Registered No. 3,275), Labels, Wappers, Bills, or Advertisements, or in any way infringing the rights of the Sole Proprietors,

THE LINCOLN & MIDLAND COUNTIES DRUG CO., LINCOLN ENGLAND.

**W. SUTTON & CO.**

76 CHISWELL STREET, late 10 Bow Churchyard, LONDON.

SOLE MAKERS OF THE

**ORIGINAL BATEMAN'S DROPS & DAFFY'S ELIXIR.**

Proprietary Medicines, Perfumery, Mineral Waters, Lozenges, Druggists' Sundries, and Miscellaneous Articles.

PRICE LIST FREE ON APPLICATION.

CONTAINS NO POISON.

**STORCROFT'S CURE.**

In the worst cases of DIPHTHERIA, QUINSY, and all DISEASES of the THROAT and CHEST, its effect is simply marvellous.

Wholesale Depot for London and South of England;—**MARCH & CO., 26 SOUTHWARK ST., S.E.**



# BOSISTO'S "STANDARD TEST" EUCALYPTUS OIL

**PARROT**



**BRAND.**

**Sold only in 1-lb.**

**and 2-lb. Bottles.**

This Oil is the product of Fresh Eucalyptus Foliage obtained from the Desert species, Dumosa and Oleosa, and yields under proper treatment 35 per cent. water-white crystallisable Eucalyptol, having the specific gravity, 0.920, Temp. 15° Cent., crystallising at 14° Cent., and re-melting at 1° Cent. **BOSISTO'S EUCALYPTUS OIL** received the Silver Medal of the Society of Arts for the introduction into commerce of the Essential Oil of the Eucalyptus from Australia, 1866, and has been awarded at various European, American, and Australian Exhibitions since 1853, **10 Gold Medals, 8 Silver Medals, 18 Bronze Medals.**

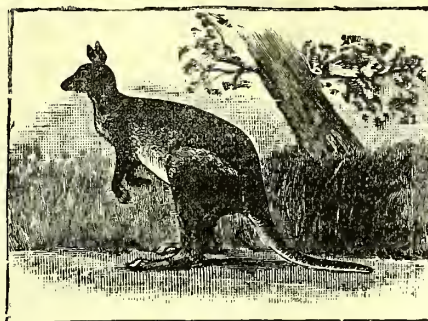
Quantities less than original packages supplied by Messrs. Allen & Hanburys, Barron, Harvey & Co., A. S. Hill & Sons, Hockin, Wilson & Co., London & Manchester; Hodgkinson, Tracacher & Clarke; Grimwade, Ridley & Co., Ipswich. Or in original cases only, containing either 36 1-lb. bottles, or 25 2-lb. bottles, by the **Sole Consignees,**

**GRIMWADE, RIDLEY & CO., 82 BISHOPSGATE ST., LONDON.**

# BICKFORD'S EUCALYPTUS OIL

**25-lb. Tins.**

**KANGAROO**



**TRADE MARK.**

**25-lb. Tins.**

**BRAND.**

Is admitted to be the Purest Eucalyptus Oil yet introduced to the public.  
To be obtained of your Wholesale Druggist.

**SOLE CONSIGNEES—LAUGHLAND, MACKAY & BAKER, 50 Lime St., LONDON.**

**COLONIAL ADDRESS—A. M. BICKFORD & SONS, WHOLESALE DRUGGISTS, 46 CURRIE STREET, ADELAIDE.**



# B. KÜHN, <sup>36</sup> St. Mary-at-Hill, LONDON

## PAPAIN

(DR. FINKLER &amp; CO.)

A purely vegetable ferment, which combines digestive, tonic, and antiseptic action. It is superior to Pepsin and Pancreatin, as it digests and peptonises albumen in acid, alkaline, and neutral media. (See opinion of Medical Press.)

## PAPAIN PEPTONE

Albumen of fresh Beef predigested by Papain. It is the most concentrated form of Peptone. It contains 92.42 % albumen in the form of Peptone and Albumose. (See *Lancet*, April 4, 1891, p. 781.)

## EXALGINE

(BRIGONNET).

The most efficient analgesic. Relieves pain in Neuralgia of all kinds Sciatica, Lumbago, Locomotor Ataxy, Chorea, Cephalalgia, and Rachialgia in Influenza, &c. (See published reports by Professors Frazer and Dujardin-Beaumetz, and other authorities.)

## SALICYLIC ACID, SALOL, SALICYLATES

(KNOLL &amp; CO.)

The products of Messrs. Knoll & Co., Ludwigshafen, are well known for their purity, uniformity, and superiority of manufacture generally. The Salicylic Acid was found free from creosotic and melting at 156 Centig. (314.2 Fahrenheit). The Salicylate of Soda was found to have the same degree of purity. (See published Analytical Report.)

## ETHYL CHLORIDE

(DR. BENGUÉ).

With Patent Stopper and Spray. The most convenient, economic, and handy form of producing local anæsthesia for dental or minor operations; also as a remedy for relieving pain in Neuralgia, Migraine, &c. (See Pamphlet.)

Samples, Pamphlets, published Reports of the Medical Press, &c., sent free on application.

SOLD BY ALL WHOLESALE DRUG HOUSES, OR DIRECT BY B. KÜHN, 36 ST. MARY-AT-HILL, LONDON  
(IN WHOLESALE QUANTITIES ONLY).

Use GARDNER'S Patent  
**'RAPID' SIFTERS & MIXERS**



For Sifting and Blending every kind of Dry Powders.

New Illustrated Catalogue on application to  
**WM. GARDNER,**  
Engineer, &c., Gloucester.

STANDARD PATTERN.

## GLASS BOTTLES

GOOD AND CHEAP.

From Stock in London or direct from the Works.

SPECIAL PACKAGE for the New Year, 1893, containing—

	s.	d.
1 GROSS 8-OZ. BOTTLES .. ..	9	0
2 " 6-OZ. " .. ..	18	0
1 " 4-OZ. " .. ..	8	0
PACKAGE .. ..	1	0
	<b>£1</b>	<b>16 0</b>

The New Shape with rounded edges, or the ordinary shape, either plain or graduated.

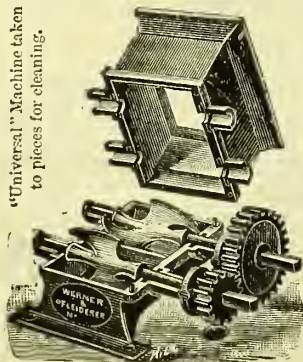
The above "Special Package" is sent, Carriage Free, to any part of England.

SAMPLE BOTTLE SENT FREE ON APPLICATION.

**I. ISAACS & CO.** Glass Bottle Manufacturers,  
25 Francis St., Tottenham Court Rd., LONDON, W.C.

Established 60 Years. Bankers London and Westminster Bank

"Universal" Machine taken to pieces for cleaning.



Size 3, Type 1., for 1-lb. Mass.

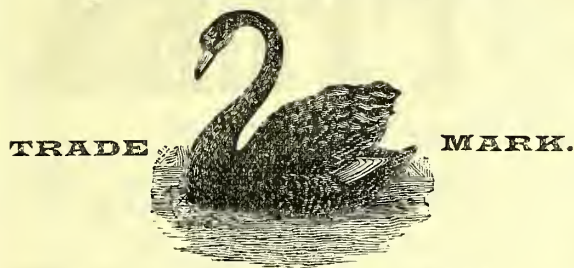
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Kneading & Mixing Machine,  
Used by all the largest Pill Makers.  
SUITABLE ALSO FOR  
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Consistency.

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PILL PIPERS,  
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POWDER-SIFTERS  
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And every Accessory for the Pill Room.

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Distilled from the leaves of *Eucalyptus CNEORIFOLIA*, formerly considered a sub-variety of *E. Oleosa*, but now classed as a distinct variety.

The Trade are invited to test this carefully prepared Oil, which since its recent introduction from Australia has won the unqualified approval of the leading British, American, and Continental Authorities.

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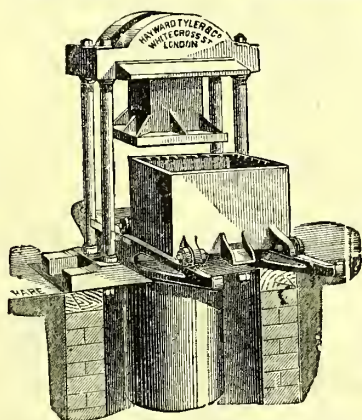
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**J. W. DRYSDALE & CO.**

8 CREECHURCH LANE, LONDON, E.C.

# **TINCTURE PRESSES.**



[5]

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**HOMŒOPATHIC**  
First  
Established

**Homœopathic Chemists.****JAMES EPPS & CO****48 Threadneedle Street,****London,****Eng.****MEDICINES****LUNGILI.**

**A New Drug for Dysentery  
and Diarrhœa.**

This Drug was discovered a few years ago by Mr. A. H. G. Pigg, when exploring in Eastern Africa. It was originally obtained from a native Wise Man or Doctor, and was the cause of curing many obstinate cases of Dysentery. It consists of the powdered bark of a tree supposed to be hitherto unknown to science.

**Price, 4/6 per Bottle.**

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Yours truly,

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**35 LUDCATE HILL, BIRMINGHAM;**

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**DISPENSING BOTTLES** of best quality, in White Flint or all the best and newest tints. **VIALS**,—White Flint or Coloured, in all shapes and sizes. **FEEDING BOTTLES**,—Plain mouths or Screw Stoppers, in White or Green Flint. **LIME CREAMS AND KALIS** of all sizes. **ESSENCE BOTTLES** of every description, Plain or Stoppered. **MALT EXTRACT BOTTLES**, in Actinic Green, Amber, Dark Blue, or White Flint.

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THE ONLY REALLY PERFECT BOTTLE FOR VASELINE, POMADE, DRY POWDERS, ETC.

### NOTICE REDUCTION IN PRICES.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 11/6; 1½ oz., 12/-; 2 oz., 12/6; 3 oz., 14/9; 4 oz., 16/9 per gross.

**CHEMISTS' AND PERFUMERS' BOTTLES IN GREAT VARIETY, PLAIN OR STOPPERED.**

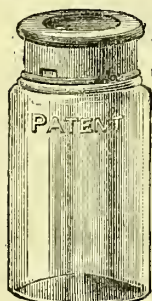
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FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

[2]



**GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**

## JOHN OAKLEY & SONS,

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Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

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Prepared expressly for Oakley's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s., 6d., and 4s. each.

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A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Paste. Tins, 1d., 2d., 3d., and 6d. each.

**WELLINGTON BLACK BLOCK LEAD,**

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

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Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

**"THE CHEMIST AND DRUGGIST,"**  
APRIL 29, 1893.

This Issue will have a Special Circulation in SOUTH AFRICA, INDIA, CHINA, JAPAN, the STRAITS SETTLEMENTS, and throughout the WEST INDIES.

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"LA SPECIALITE"

## FEEDING BOTTLES.

NEW SERIES  
TO MEET THE PREVAILING TRADE COMPETITION.

### FITTED WHITE RUBBERS

No. 85.—Green Glass Bottle, Wood-top Cork	...	...	...	...	21/- per gross.
" 86.—White "	"	"	"	...	23/- "
" 87.—Green Glass Bottle, SCREW GLASS STOPPER	...	...	...	...	24/- "
" 88.—White "	"	SCREW GLASS STOPPER	...	...	26/- "

### FITTED BLACK RUBBERS

No. 89.—Green Glass Bottle, Wood-top Cork	...	...	...	...	23/- per gross.
" 90.—White "	"	"	"	...	25/- "
" 91.—Green Glass Bottle, SCREW GLASS STOPPER	...	...	...	...	26/- "
" 92.—White "	"	SCREW GLASS STOPPER	...	...	28/- "

IN QUANTITIES OF NOT LESS THAN ONE GROSS OF A KIND.  
EACH BOTTLE IN PAPER BAG.

PLEASE QUOTE NUMBER IN ORDERING.

SEND FOR OUR NEW ILLUSTRATED PRICE LIST, JUST ISSUED.

Special attention is drawn to above Quotations for

### SCREW STOPPER SERIES

Nos. 87, 88, 91, and 92.

*We supply over 100 Various Kinds Attractive Feeding Bottles.*

EVERY CLASS AND DESCRIPTION

## BOTTLES & GLASSWARE.

Offices and Show Room: 83 UPPER THAMES STREET, LONDON.



**SOLUTION OF IRON.**

An infallible remedy for Anæmia, Poorness of Blood, Indigestion, Hæmorrhages, &c. Easily taken even by children. Does not affect the stomach, cause CONSTIPATION, nor BLACKEN THE TEETH.

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Price, 3/6 the Bottle.

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CHEAPEST SELLERS IN THE MARKET.

**ALSO CHEMICALS, DRUGS, AND OILS.**

APPLY TO

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Are the most digestible, flexible, and elegant Cachets in the market, and are fast replacing all competitors. The Cachets are made to hold from 3 to 18½ grains Quinine or Salicylic Acid.

"MORSTADT" CACHET CLOSING APPARATUS, to easily, cleanly and speedily close 12 Cachets at one operation, from 12s. to 30s.

SMALL APPARATUS, to fill and close 1 Cachet at a time, 2s. 6d. each.

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**BRIGHTENS FURNITURE WITH LITTLE LABOUR.**

In Tins—1d., 7/- gross. Stone Bottles—1d., 8/- gross; 3d., 2/- dozen; 6d., 4/- dozen; 1s., 7/- dozen. It is sure to please and increase your trade.

Every Chemist should send for Sample order, 6 dozen assorted as required, Carriage Paid, P.O.O. or Cheque, payable to

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(SHOW ROOMS AT CHARING CROSS HOTEL.) [2]

**Bromley's Gout & Rheumatic Pills**

Established 1807. WILL CURE. CHEAPEST. MOST PROFITABLE. Not Sold under Price on Box. Send Hand-bill or Labels.

**FREE** Printing of Chemists' own Bills.

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Guaranteed free from all injurious impurities. The Purest in the World.

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These Coffees have been before the Public for nearly 50 years,  
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PERFECTLY PURE.

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**PURE ORANGE WINE.**

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Special Terms to Large Buyers.

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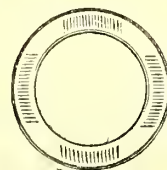
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**JUST OUT**  
**POST FREE**  
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**SHIRLEY'S NEW PRICE LIST.**



The Trade must be pretty well tired of new ideas in the direction of Teething Rings and Soothers, yet will be glad to welcome a novelty which is clearly a great improvement and step in the right direction—namely, the



**A1 CORRUGATED**  
**TEETHING RINGS AND SOOTHER**

(Provisional Patent, 19764).

We claim this to be a vast improvement upon any ring in the market. The edges are slightly ribbed, and these are a real assistance in bringing the teeth through. It is well known that mothers constantly rub their babies' gums with loaf sugar for this purpose, but by supplying the child with one of these rings, or a Soother fitted with same, it will naturally and greatly assist the teeth by its own will.

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**GOLD PAINT.**

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**HAIR-WASH POWDER.**

1d., wrapped in tinfoil enclosed in envelopes.  
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In Bottles with Brush attached to box-top cork.

1 doz on card, 2/6 doz.

**CEMENT.**

1d., 3 doz. on card ... 7/- gross.  
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Well got up and equal to anything in the market.

1/2 oz., capped, 2/9 doz.; with Sprinkler, 3/- doz. 1 oz., capped, 3/9 doz.; with Sprinkler, 4/3 doz.

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3L., very pretty, in hanging glass box, 2/- doz.

6d., half-doz. in box, 4/- doz. These are beautifully made and scented.

**CARBOLIC TOOTH POWDER.**

In Tins, very attractively labelled.  
 3 oz. 1 oz. 1 1/2 oz. 3 oz.  
 22 3/- 3/6 5/- per doz.  
 6 doz. 1/11 2/9 3/3 4/9 "  
 12 " 1/9 2/6 3/- 4/6 "  
 Buyer's own name on free for gross lots.

**FULLER'S EARTH AND VIOLET POWDER.**

In handsome gold-blocked leatherette boxes, quite new ... 3/9 doz.  
 A beautiful line.  
 1d. barrels, F.E., 6/-; V.P., 6/6 gross.

**DIGESTIVE CANDY.**

In Tins to retail at 2d.

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MAKERS OF  
**CONCENTRATED LIQUORS**

SOLID AND LIQUID EXTRACTS, B.P. & U.S.P.,

And all Pharmaceutical Preparations.

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**PETROLATUM**

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(Neutral and Bright).

Finest Non-Freezing Norwegian Cod-liver Oil (1892). Tasteless Castor Oil. English and Foreign Essential Oils. Extract of Malt and Extract of Malt and Cod-liver Oil. In 8-oz. and 16-oz. Amber Bottles with Artistic Labels.

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